



Video Toaster & Toaster Flyer System Prices Slashed, p. 9

# Amazing / AMIGA

COMPUTING™  
Your Original AMIGA® Monthly Resource

Volume 13 No. 6 June 1998  
US \$3.95 Canada \$5.95

## ImageFX 3.0!

Nova Design's  
Newest Edition



**WILD  
FIRE**

Animation

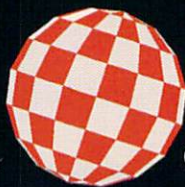
Sequencing and much more.

Share Projects *Interactively* on the Internet!

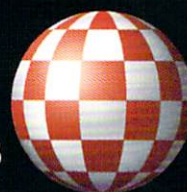
Consult, Revise, and Exchange graphics, schematics, drawings, and more with another Amiga in real time!

Unix on The Amiga: Create an Amiga Unix workstation

**PLUS!** Legacy Catalyzer, ImageFX plugins, Creative Shadow Effects, Light-ROM Version 4, Create an On-Line Amiga store, Building The Perfect Workbench, and more!



Which Boing Ball  
is Official?  
Cast your vote! p. 48





# INTRODUCING THE NEW 1998 QUIKPAK A4060T POWERTOWER

**At first glance, just a new, larger, more stylish case.**

**But ...**

when you release the patented hydraulic door, the PowerTower begins to whet the appetite of Amiga Power Users with a host of standard features and available factory installed options.

**Standard:**

MKE LS120 SuperFloppy  
Accepts PC formats down  
to 720KB and up to 100MB  
of storage using available  
SuperDisk media.

**Standard:**

24X CDROM with factory  
installed software

**Standard:**

880K AMIGA Floppy Drive

**Optional: (shown)**

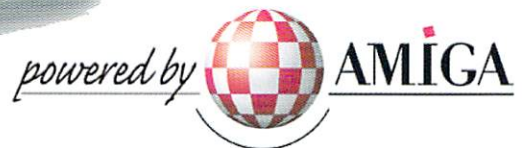
Syquest 1.5Gb  
SCSI removable media  
HDD makes transporting  
Data and applications easier  
than ever.



**And... when you "pop the hood"**

You find more drive bays and more room  
for peripherals. The removable side  
panels make it easier than ever to add  
drives, and boards to your system.

**And a few other surprises that make  
this the most powerful, versatile and  
expandible Amiga™ yet.**



**And, just when you thought we forgot our A4000T customers...**

**A4000T owners can upgrade to the A4060T PowerTower.**

By upgrading, all the new features and options are available **and** the warranties  
on the A4000T mother board, A/V board, Disk board, and Ports board are  
renewed for 1 more year!



**Contact your local dealer for more information - or visit our Web site at [www.QuikPak.com](http://www.QuikPak.com)**

# An Open Letter to the Amiga Community

To: The Amiga Community

From: David A. Ziembicki  
CEO, QuikPak Corporation

Welcome to 1998. This should prove to be the year for new Amiga products from around the world. QuikPak is releasing several new versions of the Amiga as well. On the opposite page is just a taste of what we will be shipping this month. As shown in the picture, we have added a version of the A4060T that is equipped with the fastest Motorola 68060 yet - the 66 MHz. The CPU card in the A4060T is also new and provides outstanding performance as well as enhanced SCSI capabilities.

The new A4060T PowerTower is aimed directly at Videographers and other Power Users who need a higher end computer with more expandability and room for multiple processors. We have looked at the majority of A4000T profiles and listened to the feedback from our customer base, and, based on your needs, we have created (in record time) the fast and dependable Amiga system you need today with the expansion capability you want for tomorrow.

Also, we have not forgotten the thousands of A4000T owners who have already made their investment. Our upgrade program will allow these loyal customers to get all of the enhancements and features by utilizing their current A4000T. We are also renewing the warranty on systems that are upgraded. Look for more details, specifications, and benchmarks for the new A4060T PowerTower on our Web site at [www.QuikPak.com](http://www.QuikPak.com).

As always, thank you for your continued interest and support for our line of computers "Powered by Amiga".

## NOW THINGS ARE HAPPENING WITH THE AMIGA



TEL: 610-287-8866, FAX: 610-287-0746  
or by email: [quikpak@aol.com](mailto:quikpak@aol.com)  
[www.quikpak.com](http://www.quikpak.com)



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Phone: (217) 356-1884  
FAX (217) 356-1881

#### Software Hut

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Sharon Hill, PA 19079  
Phone: (610) 586-5701  
FAX: (610) 586-5707  
WWW: [www.softhut.com](http://www.softhut.com)  
EMAIL: [softhut@erols.com](mailto:softhut@erols.com)

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Voice/FAX: 613-798-8150 (Call first to fax)

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Calgary, Alberta T2T 4T9  
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Fax: 403-243-2684  
WWW: [www.canuck.com/cshop](http://www.canuck.com/cshop)  
[austin@canuck.com](mailto:austin@canuck.com)

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Tel/Fax: 519-786-2454  
[saurus@xcelco.on.ca](mailto:saurus@xcelco.on.ca)

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Montreal, Quebec  
Voice: 514-367-2575  
Fax: 514-367-5265  
BBS: 514-769-0565

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Phone: 905-728-7048  
WWW: [web.idirect.com/~oshamiga](http://web.idirect.com/~oshamiga)  
[mjacula@idirect.com](mailto:mjacula@idirect.com)

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vox: 905-939-8371  
fax: 905-939-8745  
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[randomize@interlog.com](mailto:randomize@interlog.com)



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Pembroke, Ontario K8A 7M5  
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Fax: 613-732-8477  
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WWW: www.wonder.ca

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BBS: 915-872-3711  
WWW: www.wordbench.com/  
alex@wordbench.com

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Cumberland Center, ME 04021  
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Fax: 207-829-3522  
amiga-x@tka.com

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robertwt@ix.netcom.com

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wohno001@maroon.tc.umn.edu

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Aurora, Colorado 80014  
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WWW: www.computerroom.com  
Email: sales@computerroom.com

## The Computer Source

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Fax: 203-336-3259

## Computerwise Computers

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## Concord Computer Solutions

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Orders: 1-888-80-AMIGA  
Info/Tech: 510-680-0143  
BBS/Fax: 510-680-4987  
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moxley@value.net

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Fax: 317-577-1500  
cpuken@indy.net

## CyberTech Labs

P.O. Box 56941  
North Pole, Alaska 99705  
Voice: 907-451-3285  
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BBS2 & Fax: 907-488-2647

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Fax: (812)330-0126  
BIX: msears

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DCS@interpoint.net

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Fax: 610-378-0996

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## HHH Enterprises

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PO Box 10  
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ko4ox@erols.com

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F: (916) 925-2829  
BIX: msears

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BIX: msears

## Industrial Video, Inc.

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jolson@wwics.com

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Fax: 619-589-5230  
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Contact: Patrick Smith  
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Winston-Salem, NC 27127  
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tracarb@sprintmail.com

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17W745 Butterfield Road, Suite F  
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## Mr. Hardware Computers

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WWW: www.li.net/~hardware  
hardware@li.net

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Voice: 505-299-3767  
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hitscom@ix.netcom.com

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795 Raymond Avenue  
St. Paul, MN 55114-1521  
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WWW: www.visi.com/~raycomp  
raycomp@visi.com

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Fax: 414-548-8130  
WWW: www.sharbor.com

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Madison Heights, Michigan 48071  
Voice: (810) 546-DISK  
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Chicago, IL  
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## System Eyes Computer Store

730M Milford Rd Ste 345  
Merrimack, NH 03054-4642  
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Fax: (603) 424-3939  
j\_sauter@systemeye.ultranet.com

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Voice: 716-225-5810  
BBS: 716-225-8631  
neil@rochgte.fidonet.org

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North Hollywood, CA 91605  
Voice: 818-760-4445  
FAX: 818-505-1811

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Danbury, CT 06811-5114  
Voice: 203-744-0100  
Voice: 800-411-3332  
videology@snet.net

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287-0746 or by email:  
quikpak@aol.com



Exceptional Toaster Flyer Deals, page 9

# Amazing/AMIGA COMPUTING™



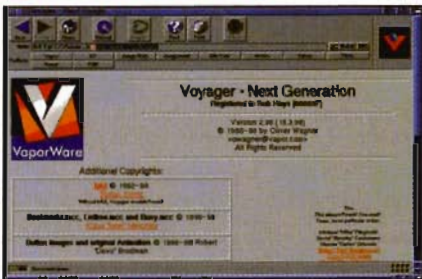
Amiga Soundtrack, New Products, P.9



ImageFX 3.0, P.12



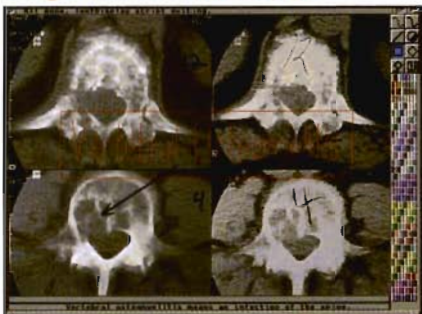
Light ROM:version 4, P.20



Online, P.26



AmigaOnline.com Notes:, P.33



Interactive Image Viewing, P.34

## 9 New Products

& other neat stuff

Video Toaster Flyer Systems Sale, Another User Group Deal, Amiga Soundtrack, and more!

## 12 ImageFX 3.0

by R. Shamms Mortier

Nova Design has once again proven the Amiga's graphic might!

## 15 The Legacy Catalyzer Videos and ImageFX Plugins

by R. Shamms Mortier

Tools in a new era of ImageFX and Amiga graphics.

## 20 Light ROM: version 4

by R. Shamms Mortier

3,000 JPEG textures plus much more makes this a special addition to any Amiga artist's tool box.

## 22 Me & My Shadow

by Nick Cook

Creative shadow effects.

## 26 On Line

by Rob Hays

Updates to Miami and VoyagerNG plus, "count down days" with JavaScript.

## 29 This Old Workbench: Episode 18

Building the Perfect Workbench Part 1

by Dave Matthews

Learn what all the Amiga's directories do and how to further "Shock-Proof" your system.

## 33 AmigaOnline.com NOTES:

Safe Harbor is offering online stores to web sites, AmigaOnline.com is delayed, and more.

## 34 Interactive Image Viewing on the Internet with the Amiga

by Michael Tobin, M.D., Ph. D.

Medical images, paintings, sketches, floor-plans, schematics, and more can be shared and revised online.

# WILD FIRE

## 16 Wildfire—

### Animation Sequencer

Review by Dave Matthews

Assemble an animation, combine animations and stills, generate special effects, create transitions, and even add frame synchronized sound effects.



## 44 Unix on the Amiga!

by Antonello De Santis

Turn your Amiga into a powerful Unix workstation. Preparing your system and gathering the software.



## 48 Which Boing Is Official?

There are two Boing Balls used as the official emblem of the Amiga. Which would you like to see as the Amiga's main symbol?

## DEPARTMENTS

Editorial	4
FeedBack	6
Index of Advertisers	40



## Getting Connected

### Web Power

There is no disputing the power of the internet on business and society in North America. We are constantly bombarded with web destinations from large companies, organizations, and even television shows. CNET.com was one of the first major efforts to combine internet availability with network power. I think CNET.com also deserves credit for at least acknowledging the Amiga with its own software site and support (a factor that is severely lacking on other large web sites).

There is no question that material can be disseminated quickly over the internet and that many people are using the internet to economically reach a lot of people with their personal message. The question comes in the way we recognize material on the web.

### It Ain't Necessarily So.

Many of us have been conditioned to believe if we see it in print, it must be true. The internet creates a problem with this attitude. Often, I have received calls from readers who want to know why we have not covered a story. When I ask for their source, I am told, "I saw it on the net." Fortunately, that is not how we research stories and articles for AC. While we will publish material we have first discovered on the net, we confirm the information before we print it.

The problem with the Internet is that it is beginning to undermine the difference between opinion and factual information. A local newspaper recently ran a front page headline on its Sunday edition that stated it would deliver *The Facts Behind The Vote*. Unfortunately, there were no facts, but only the suppositions and the opinions of a columnist. While I could understand running the column as an opinion piece, there was no way the article deserved front page, top line attention. It was not a factual story! Fortunately, journalistic standards may not be slipping everywhere, but they are taking a turn that is dangerous to everyone. That said, I want to encourage everyone to get on line.

### Why We Should

OK, it may seem like an about face, but I assure you it is not—just the opposite. It is important that we unite the Amiga users, developers, and vendors. The internet is one of the most cost effective ways to accomplish this goal. It allows users to scan vast amounts of material. You may wonder, "With all that power, won't this be a problem for *Amazing Computing/Amiga*?"

I hope not. I believe there will always be a need for a publication readers can depend on for truth and integrity. There must be a source of information that Amiga users can and do trust such as AC. In addition, many of the projects and features available in *Amazing Computing*, remain difficult to reproduce on the web or in a downloadable format. The internet should not replace AC, just make it more valuable.

This means that our web site ([www.pimpub.com](http://www.pimpub.com)) should not be a place for reprinted articles from issues, but a platform for discussion about the articles and actions in AC and the Amiga market. It should complement the print efforts. I believe this is just one of the things we have been missing. In addition, we need to be able to contact our readers with information as it becomes necessary by email.

### Your Email Address, Please.

I hope everyone responds to this request by either emailing me directly at [donhicks@pimpub.com](mailto:donhicks@pimpub.com), or by stopping by the site. We will place your email address on a confidential (NOT FOR SALE) email list. If you ever want off the list, just email us or stop by the site.

While the number of Amiga users on-line (with or without their Amigas) currently remains small, we hope to build this number by helping the efforts of others. Our goal is to broaden the reach of the Amiga and offer all Amigans more input and even more information. Please, drop me a line!

Sincerely,



Don Hicks  
Managing Editor

# Amazing/AMIGA

COMPUTING

Amazing Computing/AMIGA™

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*Amazing Computing/Amiga*™ (ISSN 1053-4547) is published monthly by PIM Publications, Inc., P.O. Box 2140, Fall River, MA 02722-2140. Phone 1-508-678-4200, 1-800-345-3360, and FAX 1-508-675-6002.

U.S. subscription rate is \$29.95 for 12 issues. Subscriptions outside the U.S. are as follows: Canada & Mexico \$38.95 (U.S. funds) one year only; Foreign Surface \$49.97. All payments must be in U.S. funds on a U.S. bank. Due to erratic postal changes, all foreign rates are one-year only.

Periodical Postage paid at Fall River, MA 02722.

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International Periodical Distributors  
674 Via de la Valle, Ste 204, Solana Beach, CA  
92075

&  
Ingram Periodicals Inc.  
1226 Heil Quaker Blvd., La Verne TN 37086

Printed in U.S.A.

# AMIGA<sup>®</sup>

International, Inc.

## They're Back... AMIGA 1200s for North America



One of the Amiga's most popular editions is returning to North America. Amiga International is re-releasing the AMIGA 1200 in NTSC beginning December 1, 1997. Don't miss this opportunity to purchase one of the most popular Amiga systems of all time.

The AMIGA 1200 includes:

- Motorola 68EC020 / 14 MHz, 2 MB RAM onboard
- 32-bit RAM expansion up to an additional 8 MB, significantly more 32-bit RAM may be added with an accelerator board installed
- AA Graphics System, colour palette: up to 16.8 million colours (24 Bit), 256 of them displayable simultaneously or more than 640,000 in HAM8
- Graphics resolutions: from 320 x 200 pixels noninterlaced 50 Hz up to 1280 x 512 pixels interlaced 50 Hz or 640 x 480 pixels noninterlaced 60 Hz or 640 x 400 pixels noninterlaced 70 Hz and many more freely programmable modes
- Video and Genlock capable
- 4-Channel Stereo Sound standard, each 8 Bit DMA
- Keyboard: 96 keys
- Mouse: high resolution 400 dpi, 2 buttons
- 16-Bit IDE Interface for internal 2.5" harddisk, 44 pins
- Floppy Disk Drive 3.5" DD internal, 880 KB AMIGA, 720 KB MS-DOS
- Interfaces: serial RS-232c (modem), parallel (printer), external floppy drive, 2 mouse/joystick ports, video RGB (monitor), video composite (TV, video recorder), RF modulator (TV antenna), stereo audio
- PCMCIA-V2.0 16-Bit interface for RAM (max. 4 MB, 16 bit), Ethernet, or other expansion cards
- CPU Slot 150-pin internal, for memory expansion or accelerator board with bigger processor
- AmigaOS 3.1 with preemptive multitasking

Technical specifications subject to change without announcement.

**Special: HardDisk version comes with 170 MB harddisk**

### Software Bonus!!

Each AMIGA 1200 comes with the Magic software bundle, containing:

- Word Processor—WordWorth v4SE
- Spreadsheet—TurboCalc v3.5
- Database—DataStore v1.1
- Graphics program—Photogenics v1.2SE
- Paint program—PersonalPaint v6.4
- Organiser v1.1
- Games—Pinball Mania and Whizz

### HardDisk EXTRA!

The harddisk version of the A1200HD also comes with Multimedia Authoring System Scala MM300



**See your local Amiga Dealer**

### Distributed in North America by:

#### Software Hut

Sharon Hill, PA 800-932-6442

#### Compuquick Media Center

Columbus, Ohio 614-235-3601

#### Paxtron

Spring Valley, NY 800-815-3241



### Join the Amiga Team!

For information on Amiga Licensing for your products, please contact:

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63225 Langen, Germany  
Phone 49 (0)6103/5878-5  
Fax: 49 (0)6103/5878-88  
E-Mail: sales@amiga.de  
www.amiga.de



# FEEDBACK

## From Mexico to Canada, AC readers have their own opinions and agendas

Dear AC,

In your April issue you twisted my arm (Ouch! Ouch!). I'll have to upgrade my subscription to include the AC's Guide (and, I hope, the - drool, drool-SuperGuide). My subscription to Amazing Computing/Amiga started with the March 1998 issue. Bingo! First rattle out of the box, a "how to" article that addresses me! Wow! April issue... Bingo! Another article aimed straight at me! Double wow! My subscription to a PC magazine is in its second year. Nope, not a single article that addresses the kind of software I use.

Respectfully yours,  
Verlon F Smith Sr  
Gadsden AL

*Thanks for the praise. However, we want to make certain everyone knows you are just speaking figuratively about the arm twisting.*

Dear AC,

I am writing regarding a letter in the Feedback section of the April edition regarding the term Amigoid used on the cover of the February edition of AC. This term is used by certain people on the internet but in a derogatory fashion.

I first saw Joanne Dow of BIX Amiga fame use the term in the internet Amiga groups. She referred to an Amigoid as a fanatic user who writes letters (like this

even) to the media or magazines etc. defending the Amiga, but with little professionalism. A classic example would simply be "Amiga Rule\$" or "Amiga Rocks!!!". Other, longer descriptions would simply pass the Amiga off as the best without really knowing why and refusing to recognize its faults.

I sort of take offense then to the term Amigoid. I much prefer to refer to the Amiga users as Amigans - it sounds more professional and serious.

Sincerely,  
George Noel  
St. John's, NF Canada

*Point taken.*

Dear AC,

Hello!! My name is Victor Flores, I live in Mexico City and I have been an Amiga user since 1992. In my personal opinion this is the best platform ever developed, and I think that we (the users around the world) deserve a good commercial structure for the Amiga and its products.

By this letter I want to communicate to the dealers and to NewTek or to anyone else to be in the Amiga market. I have been importing and selling Amiga products since 1993 and to this moment I am servicing 150 clients.

Here in Mexico, all over the country, many people use the Amiga for video. Many video and audio productions are made on the Amiga. In Mexico, the Amiga and NewTek products are a great option for producing video because you can get great quality for less money.

I want to tell anyone who is interested in investing in Mexico that there is a great market here. I need more support and if you wish I can give you more details for others to join with me in order to make a great market of Amiga dealers in Mexico as well as service.

Sincerely,  
Victor Flores  
Mexico City

Dear AC,

My name is Dallas Honeycutt, and it is my intention to help explain the almost universal disgust that we Amiga users seem to feel toward the IBM-Compatible market. Like virtually all Amiga owners, I have a

friend who is an absolute genius with his IBM. It was during a heated discussion with him that I discovered the source of my disgust, and I am willing to bet that many Amiga owners share these feelings. My disgust stems from two very distinct sources.

The first, for me, is the overwhelming arrogance of the IBM-compatible market. This arrogance can be traced back to the 1980s when the IBM-compatibles first came to be called "PC-Compatible". This title suggests the IBMs are the only computer worthy of being called "Personal Computers". This notion is not only arrogant, but ridiculous and insulting to every other manufacturer who has ever made a Personal Computer.

The second, and even worse, bone of contention is that in all of the years they have been around, the only computer that they have even bothered to recognize is the Macintosh. Never mind that it was the vastly superior Amiga of the 1980s that forced the evolution of the IBMs into what they are today. Without the Amiga there to force this evolution, IBM owners might still be looking at a four-color screen.

I believe that the proper action to be taken is an article in AC. This article should be centered around the history of the Amiga, detailing its many great innovations, as well as a list of its firsts, and even lists of former uses of our wonderful Amiga. I believe that such an article could be a wonderful "shot in the arm" to all Amiga owners.

What you absolutely must do though, is to tell people what we who use the Amiga already know, that it is simply the most user-friendly computer on the market, and what it may lack in raw processing power, it more than makes up in the fact that you actually use it. I thank you for your time and consideration.

Dallas Honeycutt  
Devoted Amiga User  
Morristown TN

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Our allen friends' name is Nella. She is our contact with an advanced civilization. Nella has brought to us a great advancement in Amiga technology, the Allen BoXer. The all new leading-edge design uses the AGA chip set for compatibility, but has completely redesigned logic to achieve the highest performance and most flexible design. The Allen BoXer delivers a low cost home internet solution or the basis of professional Multi-Media computing system based on the Amiga Chip Set and Operating System. The Allen BoXer provides a low purchase price with great expansion options, while delivering a performance in excess of the 040 or 060 based A4000(T).

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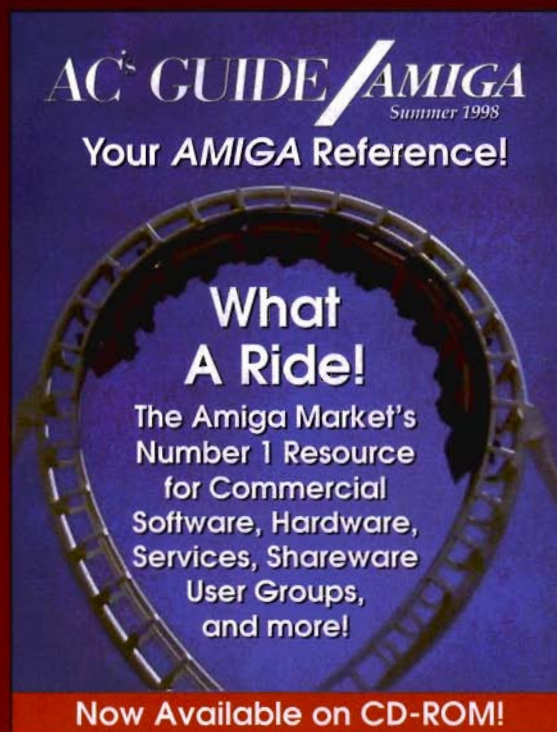
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## Video Toaster Flyer Systems Sale, Another User Group Deal, Amiga Soundtrack, and more!

### Video Toaster Flyer Price Break

NewTek has announced a complete line of specially priced Video Toaster and Video Toaster Flyer Promo Packs designed to save video production professionals thousands of dollars. "The Video Toaster and Video Toaster Flyer products have always been flagship products for NewTek," said Don Smith, vice president of Sales for NewTek. "Our bundles are designed to put this powerful system in the hands of as many video producers, animators, and broadcast professionals as possible."

The NewTek Video Toaster and Video Toaster Flyer Promo Packs are available through authorized dealers throughout the United States and Canada and direct from NewTek inside sales. Dealer locations are available from NewTek at 1-800-862-7837. In addition to these special prices, NewTek will offer directly an extended warranty and replacement IC cards at special savings.

### Special Offer for Amiga User Groups

Paxtron has announced that for a limited time only, User Group members are eligible to receive substantial discounts on items such as: phase5 accelerators, Apollo accelerators, MicroniK classic towers, integrated circuits, floppy drives, parts, and Amiga service/repairs. For details to gain access to Paxtron's User Group web pages FAX them at 914-578-6550 on your User Group letterhead or call 800-595-5534.

Paxtron has also announced they will now distribute to dealers worldwide. They are offering discounts to dealers on an assortment of their products. Check out their dealer web page as they will be adding new dealer prices often.

As a newly authorized direct service center for Amiga International, Paxtron recently opened their repair facility to dealers with a 24 to 36 hour turnaround time. To keep dealers up to date Paxtron has initiated the following programs: the telemarketing sales department contacts dealers once every four to six weeks. The purpose of the call is to bring the dealers up to date on pricing and deals for the month. Orders may also be placed at that time. Paxtron has also contracted with a fax service to send flyers to dealers every four to six weeks. These flyers will contain all the latest dealer pricing and notes of interest to the Amiga dealers.

To have access to the dealer pages and dealer pricing, please fax Paxtron your letterhead and your request for dealer status at the following fax number: 914-578-6550 or call them on their toll free number: 800-595-5534.

*The press releases and news announcements in New Products are from Amiga vendors and others. While Amazing Computing maintains the right to edit these articles, the statements, etc. made in these reports are those of the vendors and not Amazing Computing.*

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(uncompressed) of software in thousands of archives. This CD also includes IBrowse 1.2 special Aminet-version including an inexpensive upgrade path.

Aminet 6 offers everything that was added to the archives since Aminet 5. In addition is a full version of Wordworth 5SE, TurboCalc 3.5, Ppaint 6.4, and Wildfire 3.38.

Both sets are available through various mail order companies. Stefan Ossowski, Gesellschaft für Software mbH, Veronikastraße 33, D45131 Essen

### Amiga Soundtrack

Amiga International will release their latest product at the World Of Amiga in London (May 16 & 17), *Amiga The Official Anthem, Back For The Future*. Amiga International will distribute the music CD through standard distribution and Amiga

Dealers. According to Amiga International execs, part of the proceeds will be used to help promote Amiga use and awareness through out the world.

### Budget Siamese RTG



\$49.95 ). This can be used as a full Serial based system in its own right, or evaluated and then exchanged for the full Siamese V2.5 Pro package, by paying the difference.

Based on the Siamese v2.5 software but without the TCP/IP ( Internet / Ethernet ) capabilities, Siamese Remote

Due to requests from many potential customers who want to see what the Siamese system v2.5 can do before parting with their money, Siamese Systems Limited has decided to launch the new Siamese Remote Amiga v2.1 package at a special price ( UK 29.95 pounds, Germany 79.95dm, USA

Amiga v2.1 uses a normal null modem serial cable (not supplied) for connection. The software supports serial speeds up to 115,200 bps on a standard AGA Amiga serial connection. This version of the Siamese system also supports Cybergraphics screen modes but the serial line is not as quick as the Ethernet version which is up to 50 times faster.

Siamese Remote Amiga v2.1 allows you to connect an Amiga and PC (standard maximum is 115200 bps) with all third party Amiga and PC high speed serial cards. You can remotely control the Amiga from the PC and most RTG friendly Amiga screens appear in a Window on Win95/NT4. It also includes single Keyboard and Mouse control for both Amiga and PC, works on Intel and Alpha processors, and much more. Siamese Systems Limited, 9 Church Lane, Hockliffe, Beds, LU7 9NQ, England, Tel +44 1525 211558, Fax +44 1525 211558, <http://www.siamese.co.uk>, email [steve@siamese.co.uk](mailto:steve@siamese.co.uk).

### New BoXeR Pricing

Blittersoft / Village Tronic UK has announced pricing of the new BoXeR motherboard. The US price is \$699.00, for the motherboard. Blittersoft has announced an August 1998 date for availability. <http://www.blittersoft.com/boxer.htm>

### REBOL Products Announced

REBOL Technologies will be releasing its first product, REBOL/Share, by late summer and REBOL/Core by early fall. The software is expected to run on a wide variety of platforms and operating systems from the Amiga to Unix and everything in-between. The products will be distributed as freeware, shareware, and commercial releases over the Internet and directly from the company.

REBOL Technologies is headquartered in Ukiah, California and can be found on the web at <http://www.rebol.com>

•AC•

## GET MENTIONED!

Please send New Products Information to: Amazing Computing/ Amiga, P.O. Box 9490, Fall River, MA 02720, FAX: 508-675-6002, visit us at [www.pimpub.com](http://www.pimpub.com).



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# ImageFX 3.0

Nova Design has once again proven  
the Amiga's graphics might!

by R. Shamms Mortier

The best advice on how to select a computer system has always been to search out the software you want to use first, and only then to purchase the hardware that would run it. Therefore, I would suspect that ImageFX 3 is a good reason for newbies to purchase an Amiga, and a good reason for present Amiga owners to keep their Amigas in operation. That's how good this 3.0 version of ImageFX is.

## Installation

Until you get used to the new interface, it's a good idea to leave the 2.6 version installed on your system. Of course, new users need just install 3.0. My installation did not want to write the needed calls to the user-startup file, so I had to place the needed lines in the user-startup manually. This was a simple task, because the installation script told me exactly how the lines should be configured.

You will also want to make sure that you have the correct version of the datatype.library in the Libs directory. The correct version has 15,592 bytes, and has a revision date of April 2, 1998. The installation is usually a two step process. First, the main program is installed from the seven floppy disks. Then, if you want to install the Extras (recommended), they are installed separately. The whole process takes about ten minutes.

## The New Interface

The new interface design will thrill you if you are a vintage ImageFX user. The look is extremely similar to the other Nova Design flagship product, Aladdin 4D. All of the menus are now floaters, so they can be placed anywhere on the screen. The most noticeable alteration, at first glance, is the preview screen. It appears in its own window, as opposed to being a part of the tools palettes. With

an AGA Amiga, the image windows display 256 color graphics. With the right graphics cards (CyberGraphics, Picasso, OpalVision, and others), the image render displays in 24-bit. HAM display is also an option. You can open as many images in ImageFX 3 as your memory will handle. My tests were done on an Amiga 4000 with 32 MB of RAM.

## New Features

This is a very major upgrade, which includes many new features and revisions. Many are tied into the new interface design, while some are nested deeper in the software. All ImageFX users are going to appreciate what Nova has accomplished here, and users who have some experience with Adobe's Photoshop on non-Amiga platforms will be especially impressed.

Using the new Windowed graphics in ImageFX 3, you are no longer limited to displaying one image at a time. You can load as many images as RAM permits, and even copy a section of one and paste it to another. It would be nice if you could just drag and drop brushes from one image to another, but the limitations of the present Amiga itself does not foster this. So Copy and Paste is the way to go, but that's a huge step up from any other Amiga image processing software.

The image window itself deserves a detailed look. In previous editions of ImageFX, an image was loaded at one display level, fitting as best it could to the screen. Bringing the image in as a windowed display allows you to zoom in or out using the zoom controls at the bottom-right of the image window, and the zooms are super fast. This same zooming feature has been added to all of the previewed image thumbnails that are part of the effects requesters as well.

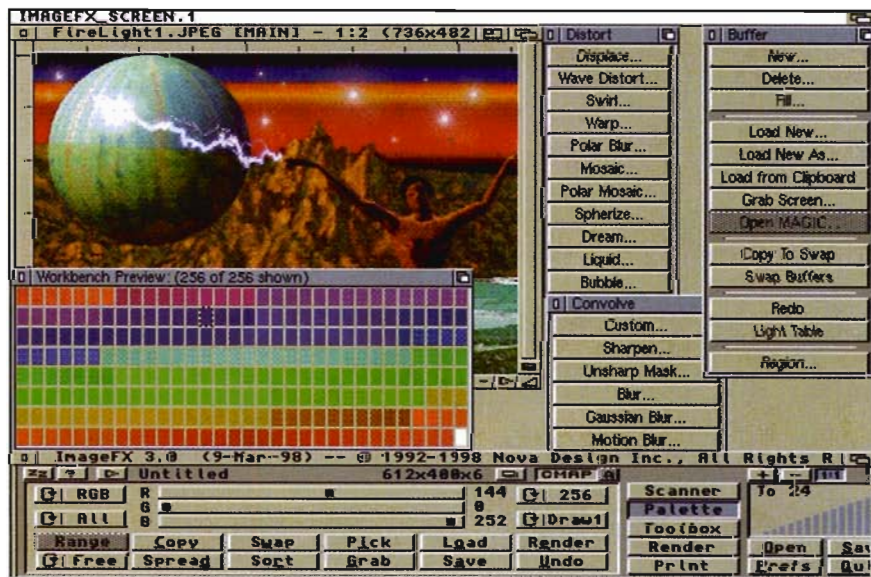


Figure 1. The new ImageFX 3.0 interface with floating palettes.



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Circle 135 on Reader Service card.

Artists always benefit when they can see what is going on at whatever level of detail is necessary, so the new zoom features offer more than convenience.

Many of the more complex ImageFX 3 effects work much faster than comparable effects in Photoshop, even when Photoshop is running on a 200 MHz platform, including the speed with which the previews are rendered. ImageFX 3 also features far more effect variable options than most of the effects in Photoshop plugins, allowing you more creative control.

ImageFX 3 has Layers! As far as I am aware, this is the first Amiga image processing application to feature image layering, an option most artists and animators relate to with high end DTP software on non-Amiga platforms. ImageFX 3's layering capability is not merely a token attribute either, but compares more than favorably to the layering capabilities of Photoshop or any other comparable image processing application on any platform.

A Layer is an image placed over the first image (the background) as part of a stack of images that can be composited together. ImageFX 3 allows you to create, delete, blend, and move layered images, and to instantly determine the transparency of each. When a composited stack looks right, the stack is "flattened", that

is, permanently composited together in one image. There are more features and possibilities to layered ImageFX 3 creations than this, and we will detail the process in a future *Amazing Computing* article.

Using the new Color/CMAP transition operation, you can remap a 24-bit image into one with registered colors. This reduces the space needed by the

image for storage, and can also be used to create interesting posterization effects.

The new Fire Effects module is a good companion to the Lightning module made famous in ImageFX. This effect is far more variable than the fire effects plugins offered for Photoshop or After Effects, because it has more options for configuring the variable. One example of this is that you can create

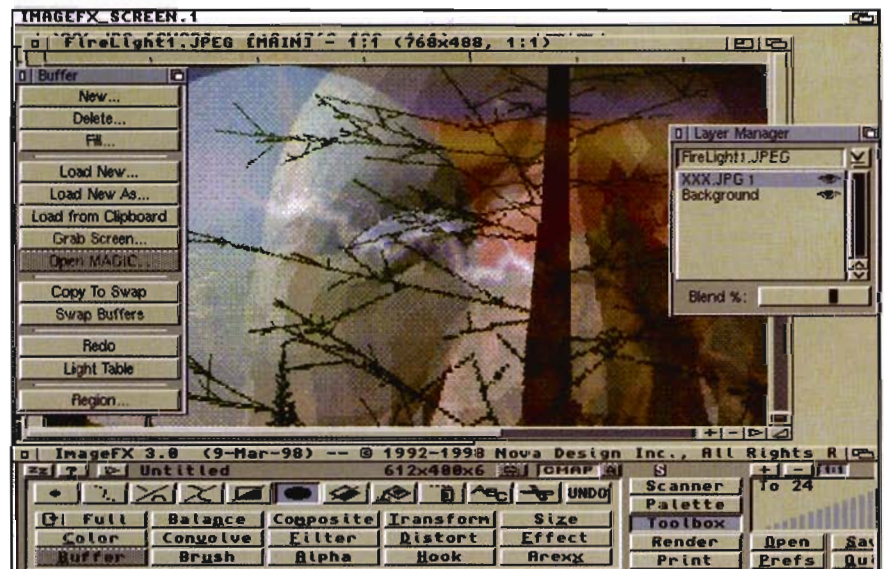
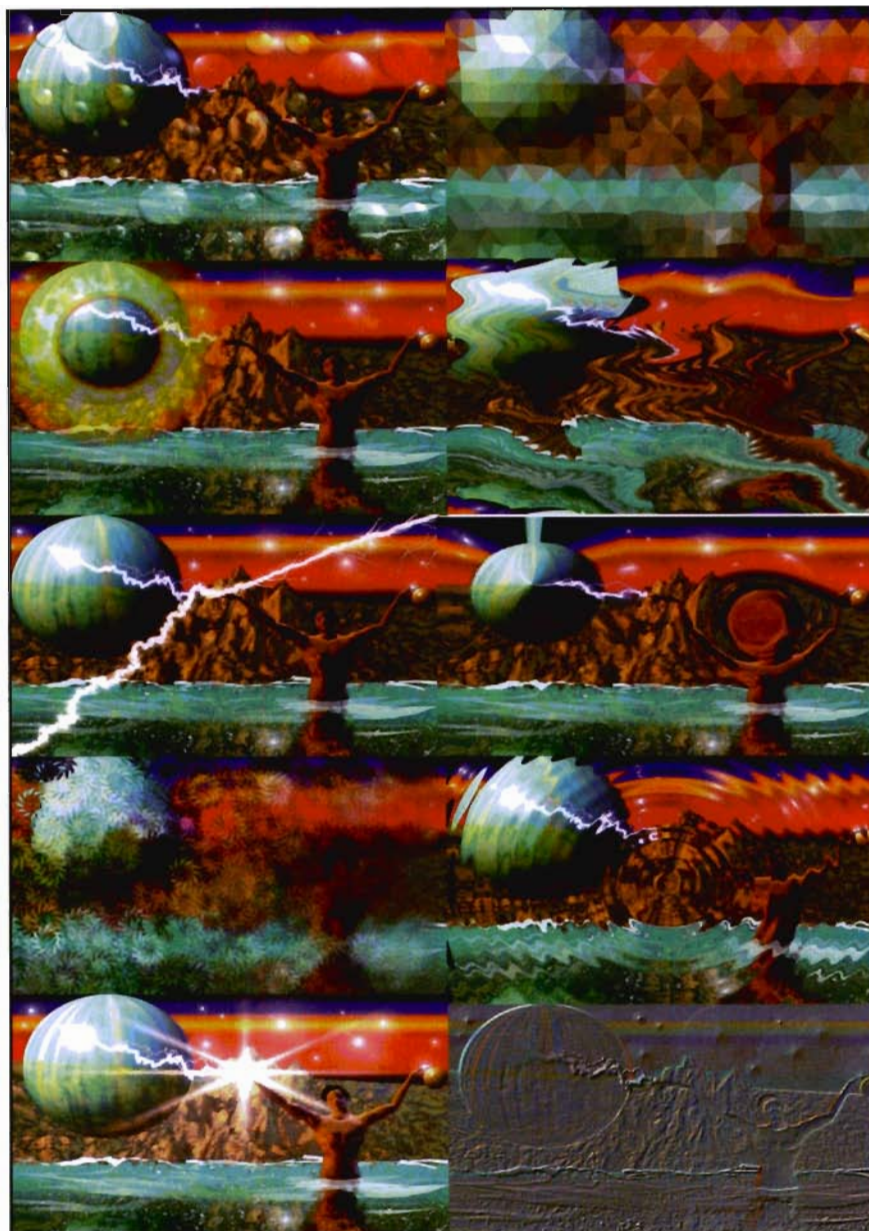


Figure 2. ImageFX has a new Layers feature which allows you to blend and composite stacks of images in countless ways.





**Figure 3. From upper left to lower right, ImageFX 3 image processing options: Bubble, Crystal, Fire, Liquid, Lightning, Pinch/Punch, PaintFX, Wave, Lens Flare, and Relief.**

flames that go sideways as well as up, just perfect for a dragon's fiery breath and rocket flames. You can also develop a whole library of saved fire effects to apply later to any imported images or image areas.

The Nova Cinematte utility, a blue/green screen compositor, is folded into ImageFX 3. This allows you to composite foreground selections against any background, just as the weatherperson is composited against a map on television.

A mention must be included about the addition of the new Hook, FXForge. This is an environment that allows you to develop new and novel effects on your

own for ImageFX 3. I would expect that Nova might offer libraries of these user developed effects at some future date.

### Speed

ImageFX 3 demonstrates an increase in speed of at least 50% for most effects processing. There are some exceptions, like the Spherize function, which actually seems to run much slower. Loading and Saving operations are much faster, as is rendering. Preview thumbnails also render very quickly compared to version 2.6.

### What Needs Another Look

There are a few things I would like to see altered as the editions proceed. First, there is no easy way to get to alternate font libraries. I have five drawers of fonts, separated into distinct looks. The only way that I can access my alternate Font directories from ImageFX is to rename them. That's silly. There should be a directory button in the ImageFX 3 Font requester that allows me to select font directories anywhere on my system, no matter what the drive is. DPaint had this same problem before user feedback forced a correction.

Second, one missing component from the image arena is the ability to select "NEW", and create a blank screen of a user determined size. This is vital if your aim is to create composites or digital paintings with ImageFX 3's painting tools, and ImageFX is an excellent bitmap painting application. The blank new image area then becomes the environment into which you paint or place other imported image elements in a layered composite.

Last, there should be an instant Escape key interrupt that stops any effect in its tracks, without having to wait until the modification underway finishes.

### Conclusion

In future issues of *Amazing Computing/Amiga*, we will cover the new ImageFX 3 image processing options in detail, including all of the effects and the associated modules.

To access the ImageFX patches as they are developed (Nova is very responsive to correcting glitches and listening to user input constantly), you need to be connected to the Internet. Every week or so, you should go to <http://www.novadesign.com> and see what's happening and what's available for downloading.

You absolutely need an AGA Amiga at the very least to even partially appreciate what this software can do. Better yet, you might even consider an 060 Amiga with a CyberGraphics card, so the previews appear in true 24-bit color. The 3.1 AmigaDOS upgrade is also suggested.

If you are still running an old version ADPRO, or using Photogenics to do your image editing, you're missing the point. This version of ImageFX is the best image software ever to be offered to Amiga users. While other developers have abandoned the Amiga and her dedicated users in favor of other platforms, Nova Design has kept the faith with a vengeance. That's not easy in a developer-eat-developer world. Even



# The Legacy Catalyzer Videos and ImageFX Plugins

## Tools in a new era of ImageFX and Amiga graphics

by R. Shammis Mortier



### Legacy Catalyzer Videos

If you are an ImageFX owner, no matter what your experience and skill level is, you should purchase the ImageFX "Catalyzer" tutorial videos marketed by Legacy Maker, Inc. This is not a suggestion or an option, it is a must.

ImageFX is a very powerful graphics and animation application, but much of its power remains hidden until you delve into its more arcane features. The Legacy videos bring all of the subtle ImageFX features into the light, in a clear and easy to understand fashion. Bohus Blahut (BOH-hoosh BLAH-hoot), the captain of Legacy Maker, has created his ImageFX videos to carefully guide you through numerous ImageFX pathways, each one filled with new learning experiences.

The videos themselves are examples of what a good tutorial video looks like, with clear screen shots, step-by-step development of concepts, and an overall understanding of how to teach computer graphics and animation. These are the best instructional videos I have seen.

Each of the volumes (there are two at present, with more on the way) covers different ImageFX topics. Each section of the videos starts with the finished project, so you know which direction you are going, then the steps to accomplish that project. Also important is that at many places along the way there are suggested departures from the steps that are illustrated to spark your exploration and creativity. As Bohus says, "My aim is not to produce a phalanx of cookie-cutter artists who do everything the same way that I do. We want to imbue

you with the knowledge to be confident enough to take departures from what I'm teaching. That's why we take the time to offer complete explanations of everything that I'm doing while I'm doing it in real-time, we take the extra effort to provide crystal-clear screenshots, all without overloading the viewer."

Catalyzer 1 contents: Batch processing in ImageFX allowing the user to animate effects over time, how to animate any effect (with lighting as an example).

Catalyzer 2 content: Brush compositing, CineMatte (3.0 version), ImageFX's wide variety of composite modes, Picture-In-Picture effects, more.

Catalyzer 3 (future release): ImageFX 3.0 and many other topics that users of all versions of ImageFX will be interested in, including- hooking up a scanner, printing graphics successfully, and more.

### The Legacy ImageFX Plugins

ImageFX is extensible, meaning that it is perfectly capable of incorporating plugins from developers. Nova provides a Software Development Kit to interested programmers. Legacy is the first major company to take advantage of this, and has released an ImageFX plugin called "Pan Canvas". If you have ever watched a documentary video (perhaps the famous Civil War series on PBS), then you have seen what Pan Canvas can provide. Pan Canvas is used on a still image to move to different points of interest, essentially creating an animation from a still image.

Pan Canvas starts with a scanned picture, rendering, or PhotoCD image loaded into ImageFX. Pan Canvas' virtual camera lets you create dramatic camera pans, zooms, and arcs across the picture, all with totally adjustable spline ease-in and ease-out, all brand new for the Amiga. It opens its own color WYSIWIG interface to facilitate easy placement of start and end camera positions, and outputs JPEGs and IFFs that you can compile into FlyerClips, Anims, MPEGs, etc. Pan Canvas lets you create footage when there's none to be had, especially vital in documentaries.

The Vantage Point's Bohus Blahut recently used Pan extensively in "Fatty", a live multimedia theatrical show that will start touring nationally in '98-'99. "Fatty" features the John Fournier Quintet talking about the Fatty Arbuckle sex scandal in the 1920s. Other than the actual comedy films of Fatty Arbuckle, there wasn't any other footage available to add drama to some of the monologues in the show. Photographic stills from the era were scanned, and after cleaning them up in ImageFX, very journalistic looking footage was created using Pan Canvas for ImageFX.

If you use your Amiga to develop documentary graphics, then you absolutely need the Pan Canvas plugin for ImageFX. More ImageFX plugins are on the way.

**Catalyzer videos and  
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Bohus@xnet.com  
(773) 465-5158**

those of us that have placed other platforms next to their trusted Amigas have been given a new perspective on what the Amiga is capable of, thanks to Nova Design and ImageFX 3.0.

Nova Design has pushed the Amiga operating system just about as far as it

can be pushed. This software is not a mere token release that celebrates the glory of the Amiga past, it is a spark that will help to light the coming Amiga future. Listen carefully Gateway. Long live the Amiga, and long live Nova Design!

**ImageFX 3  
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# WILD FIRE

## Animation Sequencer

Review by Dave Matthews

**Wildfire can assemble and manipulate a series of pictures into an animation, combine multiple animations and stills, generate time dependent special effects, create transitions between animations, and even add frame synchronized sound effects.**

In the January 1998 issue of *Amazing Computing/Amiga*, I pre-viewed a beta version of Wildfire. Today, the commercial release is out and availability in North America is assured thanks to Nova Design, well known for ImageFX and Aladdin4D.

### What the heck is it?

Wildfire is billed as an animation sequencer. What Wildfire does, and does extremely well, is to build animations. Of course, many programs

do this, but what's exciting about Wildfire is the flexibility, power, and control it gives the animator.

Wildfire can assemble and manipulate a series of pictures into an animation, but it goes further than that. It can also combine multiple animations and stills, generate time dependent special effects, create transitions between animations, and even add frame synchronized sound effects. Effects can be applied to a single picture, a series of pictures, or

even to multiple animations. Wildfire can create standard Amiga anims, or it can create the new Yafa format, which has a number of enhancements over the anim5 standard, like 24-bit animations, just to name one! Like all good Amiga graphics programs, Wildfire supports ARexx, for even more power and control.

Wildfire comes on a CD, so of course you will need a CD-ROM to install it. There are versions of Wildfire for both the Amiga 680x0, and the PowerPC if you have a PowerUP board from phase5. In addition to the Wildfire program, the CD is chock full of other goodies, including documentation, tutorials (with included examples), sample images and animations, and a bonus drawer with some great surprises, including a registered version of Dust, a 3D effects program.

When you run Wildfire, you will see the main interface, which consists of a window with icons and a column of buttons (see Figure 1). The big window with the icons is your Wildfire desktop. As you work with your projects, they will appear as icons on this desktop. The desktop also has icons for viewing pictures and animations, and deleting icons from the desktop.



Figure 1: Wildfire main window



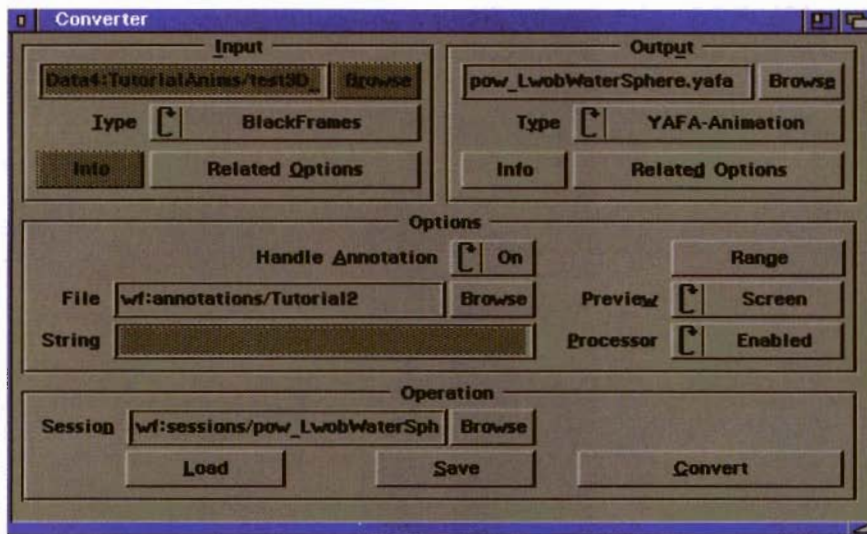


Figure 2: The Converter

## The Converter

Almost all your work with Wildfire will begin (and end) with the Converter (see Figure 2). This is the input and output area of Wildfire. For the Input, you can select single images, animations, or a sequence of pictures, or even have Wildfire generate black frames for compositing. The output sections lets you choose pictures, YAFA or IFF animations, or NIL:. This last option doesn't generate any output, and saves time when testing complicated projects. The center area is where you can enable YAFA annotations, and toggle the Preview and Processor. You can also select a range of frames you wish to convert. The operation section toward the bottom of the windows is where you load and save your Converter sessions. And of course, the all important Convert button is here.

## The Processor

Wildfire is built with a plugin architecture. While the Converter can be used alone (to make an animation from a series of frames, for instance), it is when you enable the Processor that you really get the full Wildfire effect. The Processor (see Figure 3) is both the FX engine and the organizer. The Add Button brings up the active plugins window (see Figure 4). This is where the magic starts to happen!

Wildfire has a wide array of image processing tools, and due to the

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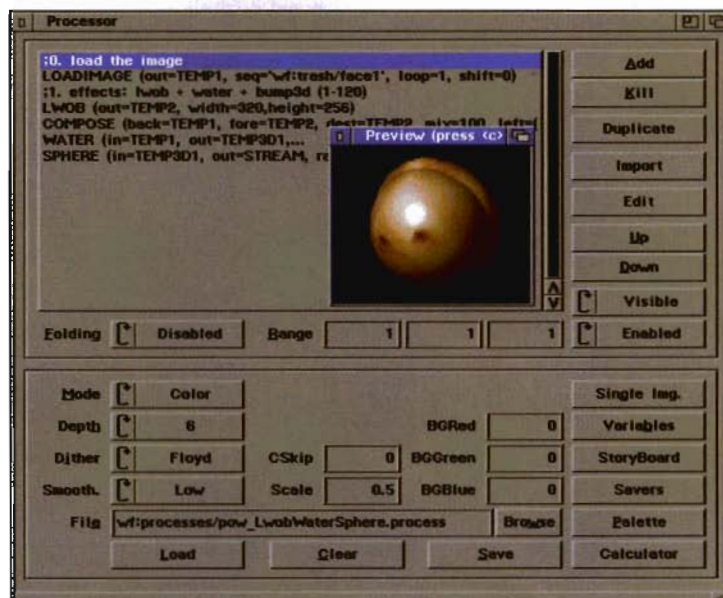


Figure 3: The Processor

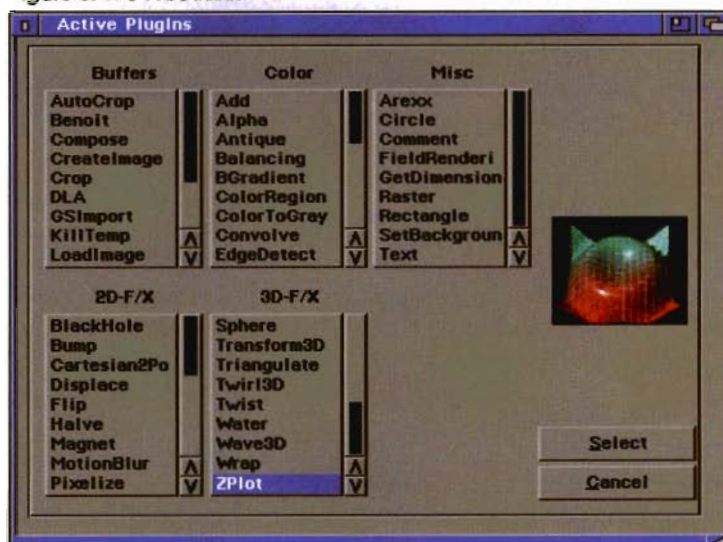


Figure 4: The Active Plugins





Figure 5: Wildfire 3D Example



Figure 6: Wildfire 3D Example

extendible plugin architecture, more can be added. If you have used any other image processing tools before, you will find many familiar effects in here- Alpha, convolve, color balancing, image warping tools, motion blur, pixelization...the list goes on and on.

### The Third Dimension

That wasn't enough for the Wildfire creators, though. Wildfire has an incredible assortment of powerful

3D tools. Wildfire can generate 3D data plots, create objects like spheres and wrap images (or even animations!) on them, twist and distort images in 3D space, and even import Lightwave objects, and apply different effects to them, or use them to affect other images. Wildfire is not a full fledged modeler or renderer, but it does offer a fantastic array of 3D tools, and considerable control over their use. Wildfire does produce beautiful phong

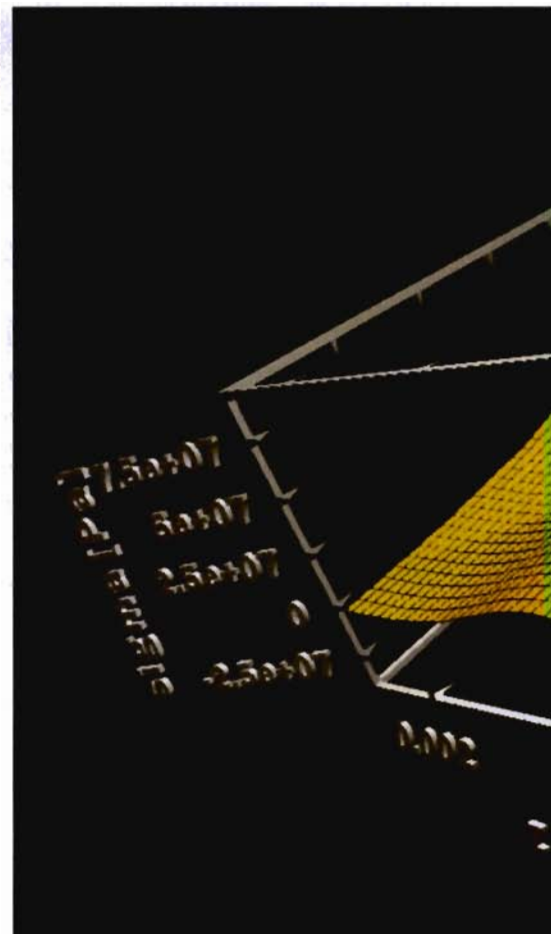


Figure 7: Wildfire 3D Example

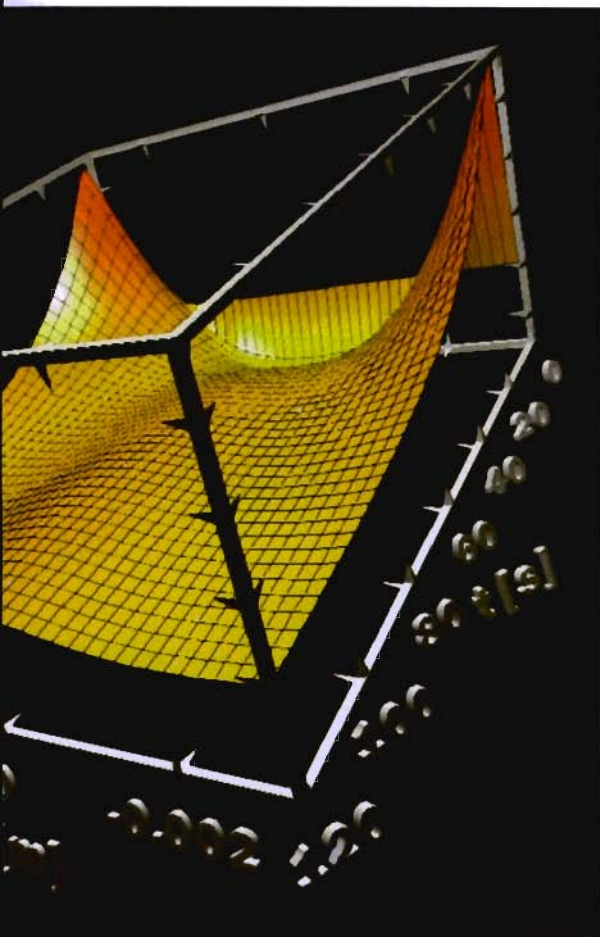
shaded 3D pictures! Wildfire doesn't care whether you are working on a single picture, a series, or animations. See Figures 5, 6 and 7 for examples of Wildfire's 3D magic.

### The Envelope Please!

Putting together a complicated animation project, perhaps with multiple animations, interspersed with still images, and frame synchronized sound effects can become a little hairy. Luckily, Wildfire also has tools to reduce the chaos, and bring the wildest project into a coherent whole.

If you've used Lightwave 3D to create animations, you are probably familiar with the concept of envelopes. An envelope lets you control the action in an uncluttered visual manner. By manipulating a curve, you can control the timing of an event, without resorting to tedious trial and error. See Figure 8 for Wildfire's envelope editor.





## The Storyboard: Your Production at a Glance

Wildfire also has a Storyboard (Figure 9). This is a series of small thumbnails of your images and animations, shown in sequence. This allows you to "see the big picture", and is a big help in keeping a complicated project organized.

### Transit Authority

Wildfire also has a nifty Transition Maker. This can create a transition animation (currently, Wildfire only supports YAFA for output in Transition Maker) between two animations or pictures using a number of effects, such as Black Hole, Fade, Pixelize, etc. This is great for splicing together animation segments. A nice feature is an animated preview of the different effects, which can be toggled on or off. See Figure 10 for a screenshot.

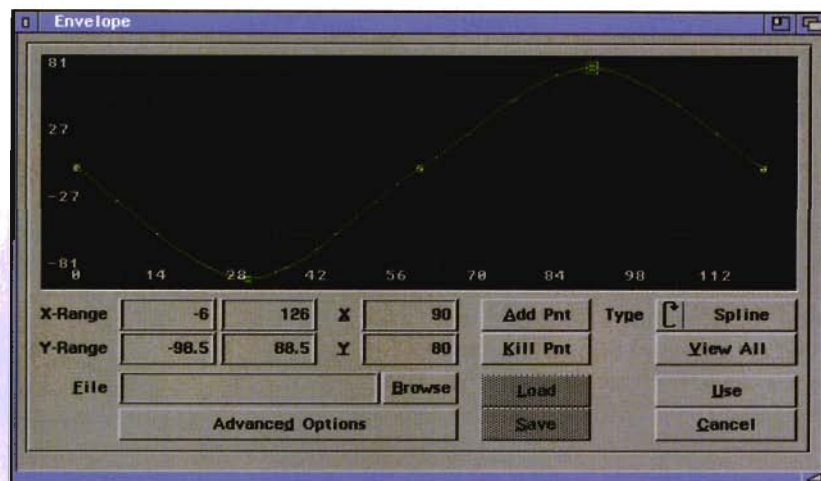


Figure 8: The Envelope Editor



Figure 9: The Story Board

## The User's Perspective

There is no doubt about it, Wildfire can be daunting, even if you have used other image processing software before. Wildfire takes a somewhat different approach than programs such as Nova Design's ImageFX, and can take a bit of getting used to. And of course, with any program that offers so much power and so many options, it can get bewildering just trying to get started.

Luckily, the documentation is fairly thorough, and there are several tutorials, which should help you come to grips. It would help to see a lot more hands on examples, though, to complement the descriptions given in

the reference. Once you get past the initial learning curve, and get your mind wrapped around the basic concepts (which will take a little diligence but shouldn't be too much of a strain), you will find Wildfire allows you to create animations easily that would be extremely complicated, or even impossible in other programs.

### Bonus!

As I noted earlier, Wildfire has a bonus drawer on the CD. In this drawer you will find several datatypes, including animation, film, MPEG and Gifanim. Also included are NewIcons v4 (I've covered this icon enhancement system in several



episodes of This Old Workbench), Visage- a very nice image viewer, and a registered version of Dust.

Dust is a powerful CLI/batch oriented 3D special effects program, written by Andreas Maschke, the programmer of Wildfire. It has many powerful tools, like metamorphosis between two objects, particle system, realistic explosions, water waves and other natural effects, direct support for Lightwave and Imagine objects, and many more.

Dust is a pretty heavy duty program, and it is not intended for beginners. In fact, the author recommends programming experience. You also need a more general purpose 3D program, like Lightwave or Imagine to model and render. Personally, I would like to recommend Nova Design's Aladdin 4D, but while it can load Lightwave objects, you would also need an object converter since Aladdin doesn't (yet, anyway) save Lightwave objects. Anyway if you're a serious 3D fanatic, and you just can never get enough power, give Dust a try. What the heck, it's free with Wildfire!

## In Conclusion

Who should buy Wildfire? Wildfire is a serious professional tool, and like all high end software, requires a good amount of computing horsepower, not to mention a fair amount of your own brainpower. While it runs well on a 68030 w/ 8 MB, a 68040 or

68060 (or even a Powerup board!) and 16MB or more of RAM will really make it shine. If you are looking for a general purpose Paintbox/FX program (and you only wish to own one such program), you might find Nova Design's ImageFX more suited to your purpose. Wildfire doesn't have any real time painting tools, and is far better suited to apply its arsenal of effects to animations or sequences of pictures than to single images, though it's quite easy to manipulate single images, of course.

On the other hand, Wildfire's unique 3D effects earn it must have status as a complement to another paint/FX program. Animators and videographers should rush out immediately and get this program. The power and flexibility, and especially Wildfire's abilities to handle and organize large animation projects, including 24-bit YAFA animations with synchronized sound effects, will add immeasurably to your bag of tricks.

As always, you can contact me via Amazing Computing or by email: dm05438@navix.net

Wildfire 68K \$149.95  
Wildfire PPC \$199.95  
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<http://www.novadesign.com>

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# Light ROM: version 4

**3,000 JPEG textures  
plus much more  
makes this a special  
addition to any Amiga  
artist's tool box.**

*by R. Shamms Mortier*

Graphic Detail, Inc. keeps creating some of the most useful and loaded CD-ROM titles for computer artists and animators. All are multi-platform CDs, allowing Amiga, Mac, and Windows users to reap the included rewards. Light ROM 4 is another example of Graphic Detail's attention to quality and variety. This is a two CD-ROM set.

One CD has 3,000 JPEG textures. That's right... 3,000! How often have you experienced a need for a bitmap texture for your 3D work that offered a different look than you could find in your texture library? Well, look what categories are included on this CD-ROM: Brick, Bumpmaps, Canvas, Cards, Carpet, Cloth, Crimple, Fire, Formica, Granite, Greenery, Images, Laminate, Marble, Material, Organic, Panels, patterns, Rock, Rough, Skin, Stone, Stucco, Tiles, Tiny, and Wood. Plus, there are JPEG directories from a collection of represented artists. Each directory holds from 50 to 100 files.

The second CD-ROM is devoted to LightWave users. Its contents are separated into directories as follows:  
**Images:** 16 categories, including Anatomy, Animals, Building, Household, Robots, Spaceships and more. These are bitmap image maps meant to be applied to specific included objects, but you can also use them for any purpose you desire.

**Motions:** 8 motion files for the LightWave Backhoe object.

**Objects:** 26 Object directories, which include the following categories: Animals, Aviation, Bones, Botany,

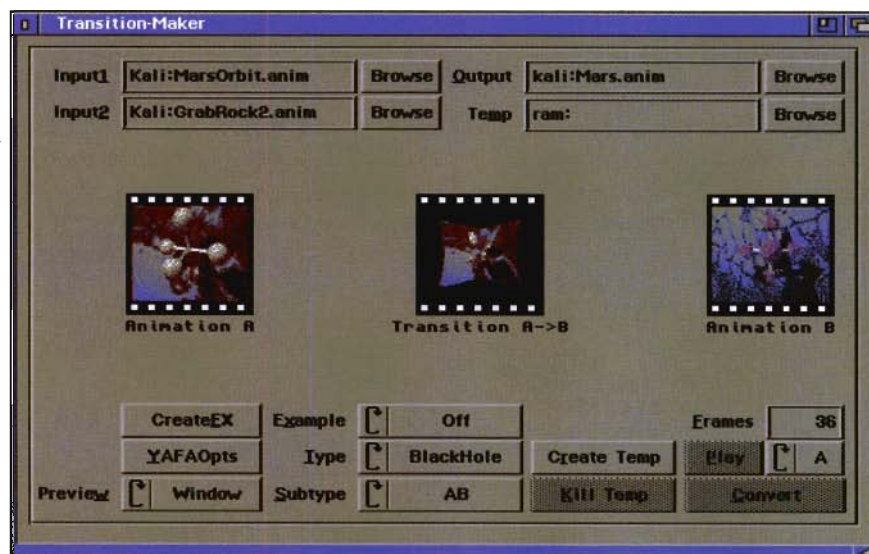


Figure 10: The Transition Maker



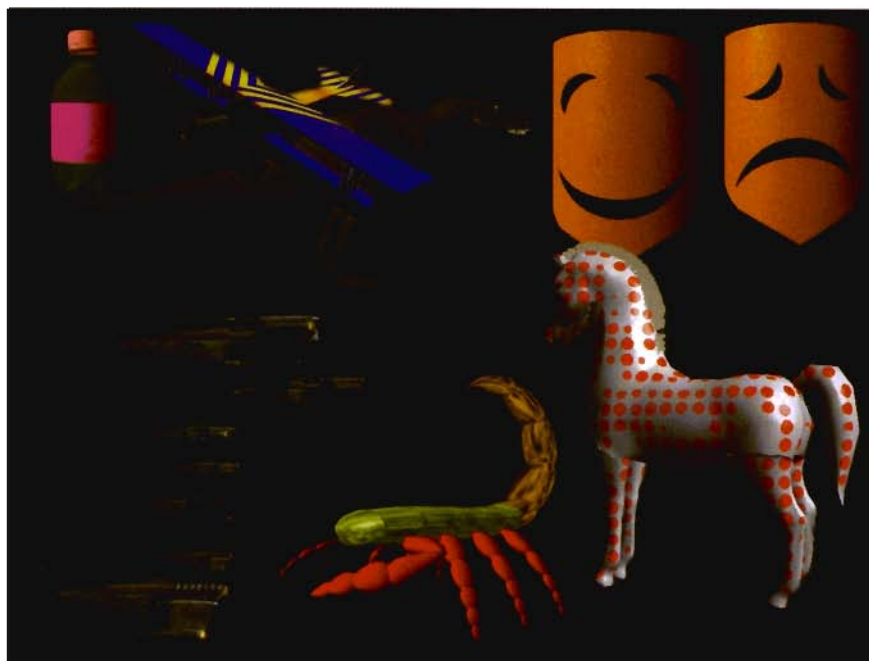


Figure 1. The objects from the Light ROM 4 CD-ROM are useful for creating interesting LightWave scenes and animations.

Effector, IK (Inverse Kinematic models), Metanurbs, Sports, Vehicles, and more.

**Scenes:** 19 LightWave scene files that include many of the object files placed in scenic relationships.

**Surfaces:** Logos, Miscellaneous, Other, and Showcase directories. The "Other" directory contains the bulk of the surfaces, and as a LightWave user, you will want to place many of these in your LightWave Surfaces directory. They include almost 200 surfaces in the Other directory alone. All are 32K files, so loading all of them in your

LightWave Surfaces directory will amount to only six and a half Megs of space.

**LightWave 3.5:** As you are no doubt aware, NewTek decided to stop the Amiga LightWave upgrades at 3.5. So just to make sure that Amiga LightWave users are supported, there is a separate folder on this CD-ROM for 3.5 users. Some of the parameters of LightWave changed in later versions, so this assures Amiga users compatible files. Included are directories for Images, Motions, Objects, Scenes, and Surfaces.

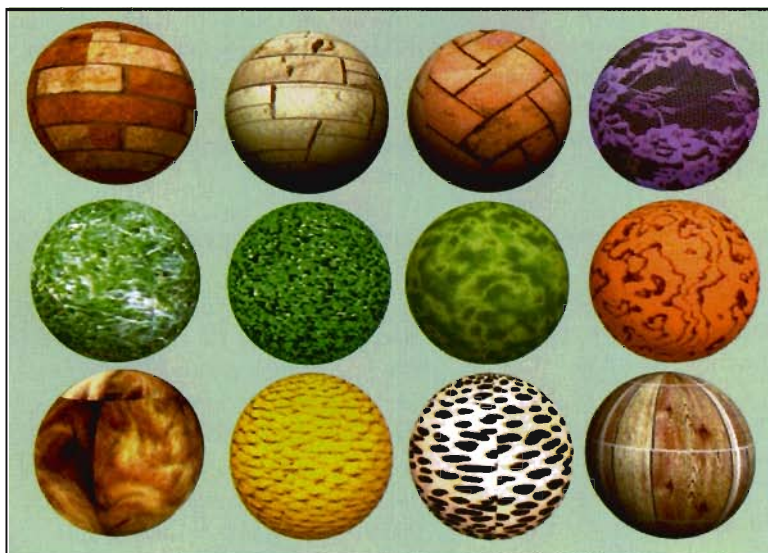
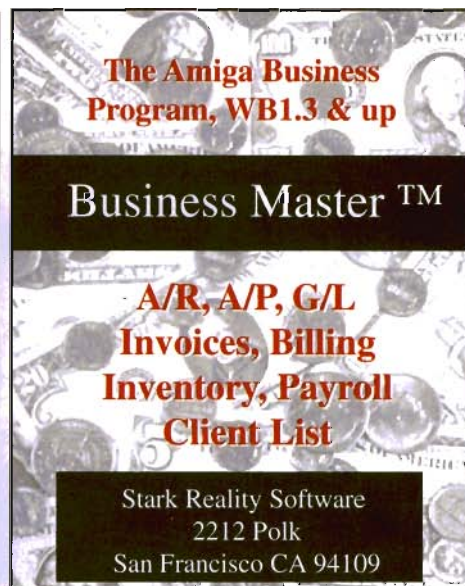


Figure 2. A selection of the mapped JPEG files on the CD-ROM.



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### LightWave Help Data

Though the Light ROM 4 documentation is small (tiny enough to fit in the CD jewel case), it is packed with helpful information. There are several pages dedicated to answering LightWave specific questions about both the Modeler and the Layout modules. This is a big help for LightWave novices.

### The Artists

As with other Light ROM volumes, this one includes objects and scenes by several LightWave masters. Each is also given mention and credit in the documentation. The included artists are Joe Angell, Alex Lugones, Kathy Blohm, Frank Maturi, Mike Beals, and Donald Drennan.

### Calling All Aladdin 4D Users

NewTek may not be supporting Amiga users anymore with LightWave revisions, but Nova Design is. Their recently released Aladdin 4D version 5 is the best Amiga oriented 3D/4D art and animation application around. A4D users can import LightWave object files, so this CD-ROM is definitely an Aladdin plus. Once in Aladdin 4D, objects can be texture mapped with Aladdin 4D's wealth of texture options.

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## Me & My Shadow



# Creative Shadow Effects

by Nick Cook

The Image Club catalog sells professional quality Postscript fonts and clipart. The catalog offers "Tips & Tricks" sidebars scattered throughout the pages. These columns give useful desktop publishing techniques. Not surprisingly, the tips involve programs such as Photoshop and are aimed squarely for the Mac and PC crowd. But we'll just keep on "Amiga-tizing" those tricks. This one shows how to create perspective shadows. You can use either PageStream 3 or DrawStudio 2.

### Put It In Perspective!

**STEP ONE:** Enter the text. The effect looks better using upper case letters. You'll need a copy of this text, so duplicate it or copy it to the clipboard.

**STEP TWO:** Make the text an object by clicking on the arrow button. In PageStream, open the "Object - Rotate" menu and rotate the text object 45 degrees. In DrawStudio,

find the "Rotate" controls under "Effects", and "Rotate Left" 45 degrees (Figure 1, top left).

**STEP THREE:** Twist the object 45 degrees. Do that in PageStream's "Rotate" menu or use the "Skew Horizontal" effect in DrawStudio's "Warp" panel (Figure 1, top right).

**STEP FOUR:** Paste the copied text. Since this text will be used as the shadow, it needs to be a different color to separate it from the original text (alternatively, the shadow could remain black if the original text was a different color). In PageStream, highlight the text and go into the "Type - Line/Fill" menu. Set the Fill at approximately 30%. DrawStudio users simply click on the appropriate grey in the "Fill Colour" pop-up menu.

**STEP FIVE:** As in step two, click on the arrow button to make a text object. Twist or skew horizontal the object, but this time to -45 degrees (Figure 1, middle left).

**STEP SIX:** Rotate the object 45 degrees. That's a "left" rotate in DrawStudio (Figure 1, middle right).

**STEP SEVEN:** Line up the two objects to create the effect (Figure 1, bottom).

A couple of cautions. Don't try a "short cut" and combine steps. Entering the rotate and twist values on the same requester will give different, and undesired, results. Also, make sure that the PageStream Rotate requester has "0" in any fields not used.

### Shadows Front and Center (sort of)

Text shadow effects are generally placed behind the characters. Seems like a perfectly logical place to put them, after all. Recently, I saw a layout for a newspaper feature where the designer stuck the shadows in front of the text. In other words, it appeared that the light source throwing the shadows lay behind the letters. It was



PERSPECTIVE  
PERSPECTIVE  
PERSPECTIVE  
PERSPECTIVE  
PERSPECTIVE

Me & My Shadow  
Me & My Shadow  
Me & My Shadow  
Me & My Shadow  
Me & My Shadow

Figure 1 (Left): The first image in the second row may cause a moment of panic, since it appears to be heading the wrong way. Don't worry. The rotate command will put things right.

Figure 2 (Right): Placing the shadow in front of the text adds a "High Noon-ish" flavor.

a striking effect, and it drew my attention to a feature I normally wouldn't have bothered reading. The basic technique to put shadows in front of the text is quite easy. The method is the same whether you use DrawStudio or PageStream; only the command names change.

**STEP ONE:** Enter your text and create a shadow text by either using the "Soft Shadow" or "Hard Shadow" ARexx script in DrawStudio (Figure 2 top), or duplicating the text in PageStream and filling it with a light grey.

**STEP TWO:** Separate the shadow from the text if needed (Figure 2, second from the top).

**STEP THREE:** Activate the shadow text object. Select Object>Warp>Horizontal at 45 degrees in DrawStudio (Figure 2, third from the top) or Object>Rotate>Slant at 45 degrees if you're in PageStream.

**STEP FOUR:** Flip the shadow object vertically 180 degrees. That will be in DrawStudio's "Effect" menu or PageStream's "Rotate" panel.

**STEP FIVE:** Place the shadow just under the headline.

These techniques are only two ways to alter shadows creatively. Play with the Warp commands in DrawStudio, or the optional Text Effects plug-in for PageStream. Remember, human creativity is not

controlled by any operating system (regardless of what the advertising tells us).

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# on line

by Rob Hays

## amiga telecommunications



### Updates & More JavaScript 101

In case you missed them, there have been some updates in the past couple of months to Miami and VoyagerNG. Plus, learn how to "count down days" on your web site.

#### Miami

My personal favorite way to connect to the Internet is now at version 3.0a (Figure 1). Holger Kruse has completely rewritten many sections of his dialer/TCP/IP program, and opened up the ability for the user to choose between Graphic User Interface engines.

Currently the choices are either Magic User Interface, or the GTLayout. Version 3.8 or above for MUI or version 40 or above of the GTLayout.library are required. Not only does this make Miami available to those users that prefer not to use MUI, it gives everyone more control over the

GUI side of the program (Figure 2). Now you can unload the GUI module from memory if space gets tight, and even switch from one GUI to another on the fly.

Another new item called SOCKS will appeal to anyone who needs to access the Internet from behind a firewall security system. If, like me, the only socks you know about are the type worn on your feet, then SOCKS won't matter to you. On the other hand, if you need to operate from behind a firewall, the SOCKS will allow standard Amiga TCP/IP clients to be used, instead of special or modified clients.

Miami now consists of the main program, one of two modules determined by the CPU in your Amiga, and at least one GUI module. The current versions can always be found at:

<http://www.nordicglobal.com/Miami.html>

Miami is shareware, with a full registration fee of \$35US. The version 2.x keyfiles do not work with version 3, which defaults to the demo version. If you registered version 2 after June 15, 1997, the upgrade to version 3 is free. Earlier registrations require \$12US to upgrade.

#### VoyagerNG

Holger evidently isn't the only programmer burning the midnight oil lately. Oliver Wagner has also been engaged in completely rewriting major sections of the VoyagerNG browser. Version 2.95 becomes the first Amiga browser to support a couple of major advancements that can speed up your surfing.

The first is support for the HTTP/1.1 standard. The Hyper Text Transfer Protocol is the method used by the World Wide Web to send information to Web browsers. If you watch closely during a surfing session, you'll see messages flash in the status window of your browser as it makes a separate connection and data request for every image or file on a Web page. Over and



Figure 1: The new version of Miami is much more than a new look.



over again the browser asks permission from the server to receive another piece of the page you are trying to visit. Leave for another page, or flush the stored images in your cache, and the entire process repeats.

Pages that support the newer standard, allow compatible browsers to "park" there, keeping the connection open for the entire visit. This eliminates all of the overhead imposed by TCP/IP for the subsequent connection requests.

The same sort of persistent connection is also now made to FTP sites, which should result in an even more noticeable speedup. This is because in addition to re-opening the connection for each file transferred, FTP normally requires new connections for every directory read, or as you navigate through the directory structure.

Among other enhancements, VoyagerNG will now try to finish the URL you are typing in the URL box (Figure 3). On ECS and AGA machines, Voyager can now blit (move) images to and from Fast RAM effectively eliminating the Chip RAM limitation.

There's more, but go check it out for yourself. The latest version can be found at:

<http://www.vapor.com/voyager/>

## JavaScript 101

Before starting this month's JavaScript lesson, some errors that crept into last month's column need to be corrected. I neglected to specifically say that each line of JavaScript code should end with a semi-colon. Secondly, the comment characters are the standard HTML comment tag pair, `<!--`, and `-->`. In the printing process, they came out as a single dash, instead of the double. I also referred to the way JavaScript outputs to a browser window as a function called `document.write()`. The proper way to refer to this is the `write()` method of the document object. Functions, objects, properties, and methods are all separate items. I apologize for any confusion.

## How many days?

Planning for a future event often occupies us. Little kids wonder how many days until their birthday, or Christmas. Older kids may wonder how long until school is out for the summer. We may wonder how many days away the next user group meeting is. Using JavaScript's built in objects, it is very easy to add a display showing a count down to a specific date to your web pages.

To create a web page showing how many days it will be until the Fourth of July requires only a few lines of JavaScript code. Start off with the basic HTML for a web page.

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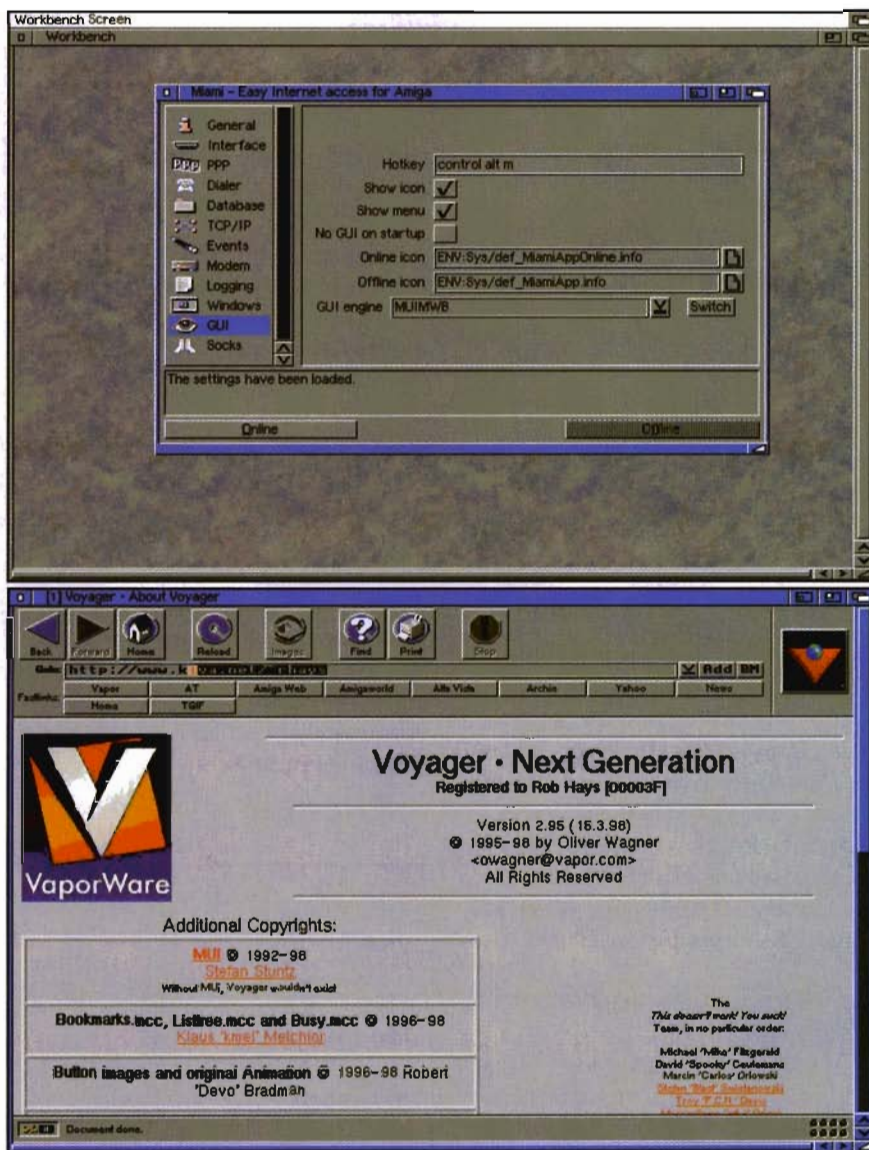


Figure 2 (Top): Complete GUI control.

Figure 3 (Bottom): Anything that can figure out what I'm trying to type is great.



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```
<HEAD>
<TITLE>How many days 'til the Fourth of
July?</TITLE>
</HEAD>
```

```
<SCRIPT LANGUAGE="JavaScript">
<!--
```

Remembering last month's "What time is it?" script, we want to set up three variables, one for the current date, one for the future date, and one to hold the difference between the first two. Like this:

```
var now = new Date();
var then = new Date("July 4, 1998");
var gap = then.getTime() -
now.getTime();
```

The last line is the heart of the script. It uses the `getTime()` method of the `Date` object to calculate a number for our Dates stored in the `now` and `then` variables. However, because this number is actually in milliseconds, we need to convert it into days, which is done in the following line:

```
gap = Math.floor(gap/(1000*60*60*24));
```

Looking at the right-most portion first, you'll see a lot of multiplication going on. Since the number stored in `gap` is in milliseconds, and we want days, we need to divide the number

we already have by the number of milliseconds in a day. We could simply replace the calculation with the number 86,400,000. But since the number of milliseconds in a day is not a number most of us keep handy in our minds, it is simpler to have our computer multiply for us. 1000 milliseconds per second, 60 seconds per minute, 60 minutes per hour, and 24 hours per day.

Divide the milliseconds in `gap` by this number to obtain the number of days. Now we could simply output this number for our answer, but few people would care to be told that it is 80.371661886574 days until the Fourth of July. So before we store our answer back in the `gap` variable, we'll round it off to an even 80 days.

## Listing 1

```
<HEAD>
<TITLE>How many days 'til the Fourth of July?</TITLE>
<!-- Form the June 1998 Amazing Computing -->
</HEAD>

<SCRIPT LANGUAGE = "JavaScript">
<!--
var now = new Date();
var then = new Date("July 4, 1998");
var gap = then.getTime() - now.getTime();
gap = Math.floor(gap / (1000*60*60*24));
document.write("Only "+gap+" days remaining until the Fourth of July!");
// -->
</SCRIPT>
```

For this we use the `floor()` method of the `Math` object. This rounds a decimal number down to the nearest whole number (integer). Alternatively we could use the `round()` method to round our decimal to the nearest integer.

Finally, we need to output the answer to our browser window, close the comment tags that hide our JavaScript from regular browsers, and close the script and other HTML tags.

```
document.write("Only " + gap + " days
remaining until the Fourth
of July!");
//-->
</SCRIPT>
```

See Listing 1 for the complete script, or check my web site below.

## Where To Find Me

[rhays@kiva.net](mailto:rhays@kiva.net)

<http://www.kiva.net/~rhays>

For U.S. Mail:

Rob Hays

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Please include a SASE if you need a personal reply.

If you run an Amiga specific BBS, send me the information callers will need to access your system. Phone number(s), modem speeds, software settings, etc. As a service to the Amiga community I will include the information I receive in this column from time to time.

If you come across any World Wide Web sites you feel would be of interest to the Amiga community, pass them along for inclusion in the HotList of the Month. Send the info to any of my addresses above.

That's all for now.

See you online!

•AC•



# This Old Workbench: Episode 18

## Building The Perfect Workbench—Part 1

Starting fresh with a new drive and new partitions is a great way to learn what all the Amiga's directories do and how to further "Shock-Proof" your system.

by Dave Matthews

### Laying the Foundation

Last episode, I covered the process of partitioning the hard drive, and preparing it for a multiple boot system. Now that we have a good foundation, we can begin building the framework for our ultimate Workbench. This fresh start will give me a chance to detail the strategies I have come up with over the course of writing this series, and also point out a few of the pitfalls I have encountered.

### Getting an Early Start

I am going to assume you have created a fresh partition and are going to use it for installing a secondary "test" Workbench. Much of what I cover here can be used for your work-a-day Workbench, but it is nice to have a stable working partition to boot from should you encounter difficulties.

Once you have created the partition, made it bootable, and installed Workbench on it, you can test it by using the Amiga Early Startup Control menu. To access the Early

Startup menu, hold both mouse buttons down when booting the Amiga. The initial screen allows you to toggle between PAL and NTSC video modes, boot with or without the Startup-Sequence, and access the Boot Options, Display Options, and Expansion Board Diagnostics sub menus. See Figure 1.

We are only interested in the Boot Options button for now. Pressing this reveals the Boot Options sub menu. See Figure 2.

The left hand box shows a list of bootable devices attached to your Amiga. These include floppies, hard drives, recoverable RAM devices, even the 1200's PCMCIA slot. To boot from a new hard drive or partition, simply select the desired device and click on "use". The right hand box displays more information about the attached devices, and allows you to disable any device, if you don't want the system to see it. Disabling your main hard drive partition(s) for examples, could be useful for testing unknown, or

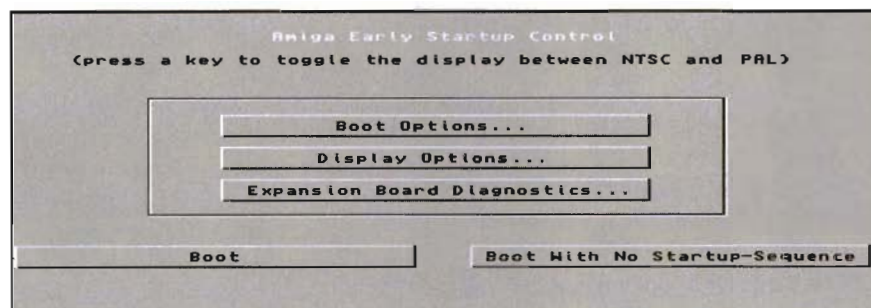


Figure 1: The Early Startup Control menu

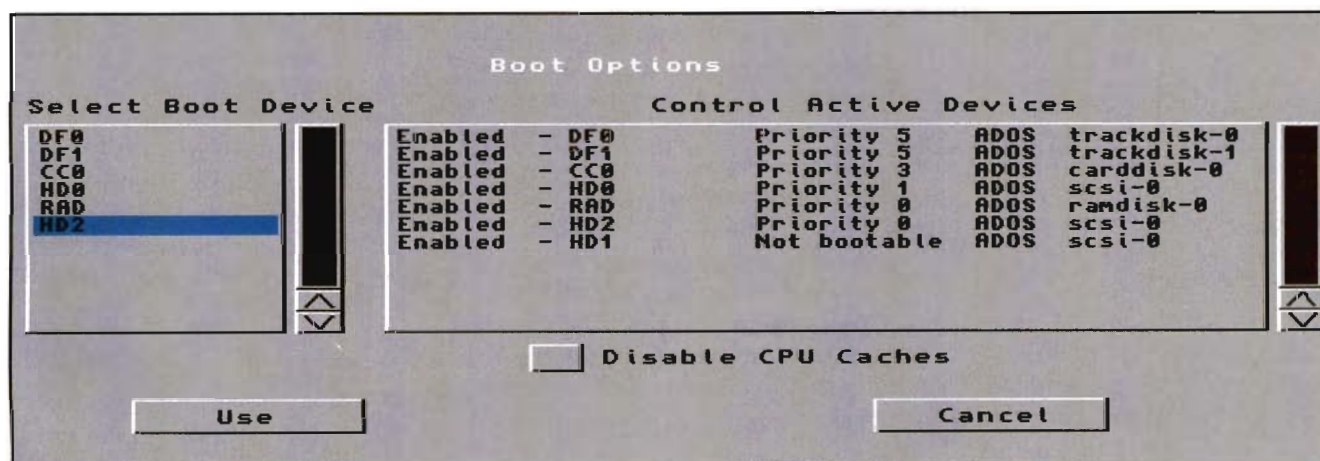


Figure 2: The Boot Options screen



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possibly virus infected programs. Simply click on the name of the device in the right hand box to disable or enable it.

The right hand box also shows the boot priority of each device. When booting, the Amiga uses the device with the highest priority. If that does not prove to be bootable, the Amiga moves on to the next device in the list. As you can see from Figure 2, the floppies are checked first, then the hard drives in order of priority.

### Building the Framework

OK, now we have got a shiny clean new Workbench install. Before we start installing all the latest gizmos, a little planning and forethought is in order. One of the biggest problems in keeping modern computer systems stable and efficient is the ensuing

complications resulting from installing, configuring, upgrading and uninstalling software. Every time you install a program, like as not, new files will be scattered hither and yon, all over your hard drive. Often installing a program will replace the files already on your hard drive, even, in the worst case, overwriting newer versions with older versions, and without asking, or even informing you of what files have been changed.

Ever installed a program, and then later, found that another program had stopped working? This is bad enough if you catch it right away, but imagine running that program after a few weeks have gone by. It becomes quite difficult to track down these mysterious problems. And lest you think I am being overly critical of the Amiga, rest assured, the problem

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exists and is even worse in Windows. Luckily, most developers have taken notice of this, and are beginning to address this problem with better install procedures.

### Safety Inspections

#### Just What Do These Dirs Do

Unfortunately, there are no perfect solutions to this problem, and you can't really count on the wisdom of developers to keep your Amiga humming along. Let's take a quick tour through the Amiga's OS setup. When you install the Amiga's Workbench, it creates a number of directories (also known as drawers in Amiga parlance), each of which is dedicated to a more or less specific task (listed in alphabetical order):

**C** - Here we find most of the AmigaDOS commands, such as Dir, List, and LoadWB. This drawer is for CLI/Shell programs, i.e. programs with no GUI.

**Classes** - Contains the heart of the datatype system, as well as some GUI related stuff.

**Devs** - This directory contains mostly device drivers, and mountlists for adding and controlling hardware. Printers, Monitors, CDROM drivers, all reside here.

**Expansion** - directory, which holds drivers for some third party hardware.

**Fonts** - Not surprisingly, is where the Amiga keeps its bitmap and vector fonts.



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**L** - Similar in function to the Devs directory. Here are stored filesystems, such as CrossDOS for accessing MSDOS disks, CDRom filesystems etc., and handlers. Handlers are used to extend the Amiga's system, as with VMM-handler, which is part of Martin Apel's Virtual Memory program.

**Libs** - Probably the hardest working directory on the Amiga's hard drive. This directory contains shared libraries. These are programs which are not accessed directly by users, but rather by other programs. The concept of shared libraries is somewhat similar to clip art used by a large art department. Instead of each artist drawing their own version of say, a company logo, they can just use the clip art, which provides a consistent result and saves them time. Likewise, programmers can access these shared libraries, and thus are spared writing their own version. In addition to the Amiga's own system libraries like ASL (file requester) and datatypes libraries, many third party programmers have created shared libraries for everything from system enhancements to file and disk compression to antivirus software.

**Locale** - This is where the Amiga's International language system is kept. The files in here allow the Amiga to be used in many different languages. Also sometimes kept in this drawer are help files.

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**Prefs** - This is where the Amiga's Preference programs are. Screenmode, fonts, printers, etc., all can be configured by these programs. This is also the home of the elusive Environment archive. This sub directory contains important system settings, such as screenmode, palette, Workbench pattern, default icons, etc. Many third party programs store settings here as well.

**Rexxc** - Holds a few programs used when working with ARexx, Amiga's Rexx system.

**S** - This important drawer holds several vital files, namely the Startup-Sequence and User-Startup. Also, a lot of other assorted junk tends to accumulate here as well, some programs store

configurations files, misc. data, macros, etc. By default, this is where ARexx programs are stored.

**Storage** - This is mainly a storage area for Devs, holding unused DOS drivers, monitors, printers, etc.

**System** - This is where a few programs are stored, such as the disk formatter and diskcopier, as well as the shell, and the Intellifont program.

**T** - This is for temporary files, created and discarded in the course of a program's operations. Normally this is moved to the RAM disk upon boot.

**Tools** - A variety of programs, like Icon Editor, Calculator, the Amiga's

# Don't Be Guideless

See page eight for news on the  
new AC's GUIDE SuperGuide  
available this Summer!

HD backup program, as well as the system commodities. Commodities are programs which generally run in the background, extending the Amiga's capabilities. You'll find Screen Blanker, Clicktofront, Fkey and other useful goodies in here.

**Trashcan** - This poor neglected directory is Commodore's halfhearted attempt at a trash bin similar to the Mac's. It really isn't very useful, although there are third party programs which make it more so.

**Utilities** - This directory contains multiview, more and a clock program.

**WBStartup** - Basically, the launch pad for all those system enhancement programs I have covered over the course of this series. If you want a program to be automatically run every time you start the Amiga, simply drag 'n drop the icon in here.

## Your Assignment, should you choose to accept it...

These directories contain the basic framework of the Amiga. Left to themselves, they give the Amiga a stable and powerful OS, but, tragically, install any new software, and these drawers soon fill up with a bewildering array of potential headaches. Wouldn't it be nice if you could keep all the files installed by programs in a place of their own, away from the original system files? Well you can, at least to a large extent.

Using the Assign Command, and the Path command, you can create "separate but equal" directories for third party programs, libraries, fonts, etc. For example, create a directory called Libs2, (New Drawer, under the Window menu). This can be anywhere you like, but it might be best to keep all of these extended system drawers together. Now, say you created the new Libs2 drawer on your Workbench drive, you would type (either in a shell window or by the execute command item under the Workbench menu):

**Assign LIBS: Workbench:Libs2 ADD**

Notice the ADD at the end, very important! The Amiga will now search both the original Libs drawer and the new Libs2: drawer when called upon to load a library. Similarly the path statement:

**Path C2: Add**

will notify the Amiga to search the C2: drawer in addition to the C: drawer when called to run a program.

You can do this for all the main system drawers:

**Assign LIBS: Workbench:Classes2 ADD ;**

Classes are a special case of libs!

**Assign DEVS: Workbench:Devs2 ADD**

**Assign L: Workbench:L2 ADD**

**Assign REXX: Workbench:ARexx ;**

I don't like any REXX macros in the S: drawer, so no ADD

**Assign FONTS: Workbench:Fonts2 ADD**

**Assign HELP: Workbench:Help ADD**

**Path Workbench2:C2  
Workbench:Tools2 ADD**

Note, if you want these assigns/paths every time you boot, use a text editor and add them to the top of the S:User-Startup file.

## One Final Important Step

This may seem like a lot of work, and frankly, it isn't a perfect solution. While many programs let you specify your desired installation path for libraries and other files, many do not. Note that you need to choose the expert mode of installation to be allowed to choose your destination paths. Also, if given the option, always have the installer create a log file. This will tell you what occurred, including what files went where, during the installation. Keep these logs, they are helpful in crosschecking which programs use which libraries, etc.

Another tip: when you have everything working, do two things...

First, backup up your hard drive! In particular, make a backup of preference and configuration files and settings. People remember the data they have created but often forget all the work they went to to customize the program's settings. It is extremely frustrating to get your system set up just the way you like, then have a crash and lose it all. While it is easy to restore or reinstall programs, your custom settings can get lost in the shuffle. Since programs are wont to keep their settings in a number of different places, just backing up the program might not catch all the settings. It pays to keep track of this, and make the extra effort to back them up.

Aside from the program drawer itself, two typical places programs store settings might be the S: drawer, and/or the Env-Archive drawer. While you're at it, remember to backup your Startup-Sequence and User-Startup files. A final place for settings might be in the Icon itself. These items are called tooltypes. Using the Icon Information menu item, you can look at these. You should either write them down, or just copy the icons (.info files) to a safe place.

Second, enjoy the peace and harmony of a well tuned and happy Amiga. It probably won't last!

As always, you can contact me via Amazing Computing or by email: dm05438@navix.net

•AC•



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# Interactive Image Viewing On The Internet with the Amiga

**Medical Images, paintings, sketches, logos, floor-plans, electronic schematics, blueprints, or anything else can be shared with two Amiga users who can interact to change them, paint them, annotate them, play with them, or, in short, anything at all.**

by Michael Tobin, M.D., Ph.D.

## A Dramatization

(phone rings) "Hey, Mike, this is Leo. Sorry to call you at home but I wanted to speak with you about one of my patients. Remember Mr. So-and-so with the back pain? Well, I am at the hospital looking at the films from his CT scan of the spine and have some concerns."

"Hi, Leo. I just finished looking at some scans on my network computer at home and I think that your patient might have an infection in his spine. Look at Image number 25."

"I'm not sure what you mean. I thought that Image number 36 was the one showing the abnormality."

"Leo, go into my office and turn on my Amiga 2000. Don't worry, the Amiga is easy to use. Stay on the line and I will walk you through it."

## The Setting

Teleradiology has become important in medicine. The possibility of having one radiologist in a single location interpreting films from many hospitals is attractive not only because of cost-containment but also because it can provide radiologic expertise to facilities

that cannot afford, or have no need for, a full-time radiologist.

Typically, a medical image from a digital study like CT (Computerized Tomography) or MR (Magnetic Resonance) is compressed and then sent via modem or ISDN line to a computer in a physician's home where it is decompressed and made available for viewing. The radiologist reviews the images on a high resolution monitor and then faxes a report back to the referring physician. In the ideal case, the physician on site taking care of the patient will look at the hard-copy medical films, read the report from the radiologist, and understand the correlation.

My own experience is that physicians often return to the radiologist with the films and the report and ask, "What do you mean by that?" or "Where is the abnormality?" Problems are easily resolved when the clinician and the radiologist can interact in person. But what if the radiologist is 100 miles away? How can the radiologist and the referring physician show each other precisely what they mean?

This article describes how to solve this problem using the Amiga and is

applicable in any setting in which two individuals need to review the same photograph, painting, logo, schematic, etc.

## The Plan of Attack

Everything from this point on assumes that you can connect to the Internet with your Amiga. I know many people who use their Amigas for graphic and video work but who use a non-Amiga computer for Internet access. None of the programs I will tell you about work on a PC. Naturally, your colleague also must be on the Internet with an Amiga.

Next you need to install a number of programs that will allow you to:

1. See if your friend is on the 'Net and "chat" with him if he is.
2. Create a canvas onto which you can load an image that both of you can see, annotate, alter, etc.
3. Communicate by voice.
4. Exchange files.

All of these programs are on Aminet and many are shareware. While some require modification of ToolTypes, others make changes to your TCP software. I will try to give you enough detail to configure the software. I cannot describe all of the features of all of these programs in one short article. The most I can try to do is help you to get started and hope that your curiosity will lead you to further exploration.

I have made a list of the programs I think you will need or might like to have (Table 1). I suggest that you keep everything together in a single directory.

## The Basics

Because you need to be able to connect to the Internet with your Amiga, your first and most fundamental program must be some kind of network-



Figure 1: Many Internet programs make entries in Miami's Database section during installation. Understanding the logic behind these entries can be useful should something go wrong.



ing software. I have had good success with Miami, which is not only very easy to set up but is very stable and reliable. It also seems to be under constant development, which is a strong positive.

Other Amigans prefer AmiTCP and feel it to be a more complete networking solution. Indeed, some of the programs I will be describing assume that you are using AmiTCP and gear their instructions accordingly. I have tried to balance this by providing additional information for Miami users.

Even if you ultimately choose Miami, as I have, I think that it is still worthwhile to try to install AmiTCP. Contrary to popular belief, the installation is far from impossible and the process itself is educational. The documentation covers concepts that are widely applicable and even a partial install of AmiTCP may set up directories, environmental variables, and programs that you can use later. I would also suggest that you read Dale Larson's *Connect Your Amiga!*, 2nd edition. Although some of the information is now dated, the fundamentals are still there.

When all is said and done, the choice of networking software is yours. Presumably, any AmiTCP compatible TCP/IP stack should work. However, if you stray from Miami or AmiTCP, you may have to do some of the program configurations manually.

The second program you will need is Magic User Interface, or MUI. So many programs use MUI that you probably have some version of it on your hard drive. However, AmiComSys, one of the programs I will be describing, insists that you use at least MUI version 3.8.

The third program you will need is a web browser to visit Aminet to download your programs, unless you can find the latest versions on the Aminet CD ROM collection. My current browser choice is AWeb-II because of its speed in downloading as well as its support of Javascript. However, each of the Amiga browsers has its advocates, and you can use IBrowse, Voyager, or anything else available by the time you read this article.

Although not essential for interactive image viewing, there are many additional programs you can download from Aminet to enhance your Internet experience. Some of these are listed in Table 1.

Table 1

### Basic Programs

Miami21qmain.lha	TCP/IP stack (evaluation) - main archive.
Miami21feval.lha	TCP/IP stack - binary.
AmiTCP-demo-40.lha	Alternative to Miami.
dialer.lha V1.0	Easy Dialer for AmiTCP.
GuiAmiTCP-v2.lha	AmiTCP GUI front end.
mui38usr.lha	MagicUserInterface 3.8. Needed for multiple programs.
AWeb.lha	One of several possible choices for a graphical Amiga browser.
IBrowseDemoV1.12.lha	
Newstring.lha	Needed for IBrowse demo version.
Voyager.lha	

### Programs for Interactivity

AmiComSysMUI.lha	Amiga Communication System. Communicate and exchange files.
AMarquee1.46.lha	Contains AMarquee.library.
AmiPhone1.92.lha	Internet voice telephone.
AmiPhoneMiami.lha	Install script for users of Miami.
AmiSlate1.4.lha	Share a common canvas for interactive image viewing.
AmiSlateMiami.lha	Install script for users of Miami.
AMtalk.lha	AmTalk 1.5 program. Communicate prior to using AmiSlate.
MCC_NList0.75.lha	Needed for AmiComSysMUI.lha.
QAmiTrack1.91.lha	Tells who else is online. Can be configured to launch other Internet clients.
QSendFile1.00B.lha	Send-file program. Uses AMarquee.library.
AmFTP175.lha	FTP (File Transfer Protocol) client.
AmIRC.lha	IRC (Internet Relay Chat) client. Can also send files from within using DCC send.
AmTerm12.lzx	Basic terminal program.
mNews1.3_rel1.lha	UseNet news reader.
YAM13_4.lha	Yet Another Mailer e-mail client.
YAM13_5Upd.lha	Takes YAM to version 1.3.5
Netris1.15.lha	Multi-user Tetris.

### Nice, But Not Needed For Interactivity

#### Please note:

1. Always check Aminet for the latest versions of these programs.
2. Although I have listed the unregistered (evaluation) version, my own experience is often limited to the fully licensed program.
3. Internet client programs require a TCP/IP stack, like Miami or AmiTCP.
4. When you search Aminet for these programs, look for useful "helper" software, which is also listed.

### Let's Get Down to Business

Many of the programs I will be describing require the AMarquee.library, written by Jeremy Friesner. The theory of AMarquee.library is well covered in the Amigaguide documentation accompanying the program. For our purposes, it is sufficient to know that software which uses this library permits Amiga users to communicate with each other, both directly and indirectly, via Amiga AMarquee servers.

AMarquee comes with install scripts for AmiTCP, Miami, and Inet225, which is yet another Amiga TCP software option. Although installation proceeds smoothly and without problems, you should read the documentation. AMarquee, AmiSlate, AmiPhone and QSendFile all write in Miami's Database area, so it is worth understanding the new entries that are made.

If, for example, you run into problems installing AMarquee — and





(Thomas Steinbichler — <http://amicomsys.tibb.at>) for keeping his Amiga up and running 24 hours a day. The default server is [amicomsys.tibb.at](http://amicomsys.tibb.at)

Like QAmiTrack, AmiComSys lets you see who else is online by listing user names in its main window. By selecting an individual's name, you can obtain `username@hostname` which, as I have already mentioned, is crucial information you need to connect to other users. However, unlike QAmiTrack, AmiComSys allows you to send private messages back and forth to a specific individual and also to exchange files with him/her without needing to launch another program.

So in a sense, AmiComSys is easier and more convenient to use, once you have set it up. Configuring AmiComSys is really straightforward. In the "Personal info" section, you can give your name, e-mail address, and any comment about yourself that you would like others to see. In the "System info" section, you can describe your Amiga and brag about all the RAM and boards you have installed.

AmiComSys has many nice features, and it seems that Hakan is adding more all the time. You can, for example, with just the click of a button, launch your web browser and visit a fellow Amigan's website, provided he or she has listed it as part of the personal data.

While both AmiComSys and QAmiTrack provide similar `username@hostname` information, they are really very different programs. Don't underestimate AmiComSys just because it is so friendly to use. AmiComSys supports ARexx and can be made as powerful as you choose. Although neither QAmiTrack nor AmiComSys provide a way of displaying an image for interactive viewing, either should be able to connect, via an ARexx script, to a program that can.

## AmTalk or Ringing Up Your Friend

Because QAmiTrack, unlike AmiComSys, does not provide its own talk module, you will need a program like AmTalk, by Oliver Wagner. This shareware, MUI-based program allows you to chat with another Amigan — provided you know his or her `username@hostname`. But this is precisely the information that QAmiTrack provides.

Installation of AmTalk is easy and problem-free. I have found no need to

change any ToolTypes or program preferences. Using AmTalk is similarly straightforward. AmTalk splits the screen in two and allows you to see what the other person is writing as he or she is writing it. No more waiting for many seconds (? minutes) until an answer to your question appears.

To use AmTalk, TCP software, such as Miami or AmiTCP, must be running. When you send an AmTalk request to a fellow Amigan, a "request to accept" appears. If you have configured AmTalk correctly in Inetd of Miami (or AmiTCP), AmTalk will be launched for you and a connection established. The appropriate entry in the Inetd subsection of Miami's Database area would be:

```
ntalk dgram udp Wait root
YourPathTo:AmTalk1.5
YourPathTo:AmTalk1.5 identd=1
```

The above entry contains `YourPathTo:AmTalk1.5` entered twice, once for Server and once for Name.

If you wish to be able to launch AmTalk from QAmiTrack, you can, assuming that `rx` is in the `Rexx:` directory and `Talk` is in the `s:` directory, modify Action3 to read:

```
ACTION3=AmTalk,Rexx:rx s:Talk %u@%h
```

`Talk` is an ARexx script that comes with AmTalk. You need to edit lines 16 and 17 of `Talk` to reflect the paths to `AmTalk1.5` and `WaitForPort`, respectively, on your own hard drive. Because the ARexx command, `WaitForPort`, is usually found in the `Rexxc` directory of `workbench`, i.e. your `sys:` partition, which is where `Talk` expects it to be, you will probably only need to modify line 16 to tell `Talk` where you are hiding `AmTalk1.5`.

## Ready, Set, Go!

Well, whether you have chosen to start your interactive journey with AmiComSys or with QAmiTrack and AmTalk, you are now at the same place, figuratively speaking. Either way, you and your friend know that both of you are online. You also know each other's address precisely as `username@hostname`. Using either AmTalk or AmiComSys, you can start "chatting" with each other. You can use AmiComSys to send each other graphics files and independently view the same image although you can't show each other exactly what you are looking at, unless you begin the unpleasant task of sending each other image co-ordinates.

If you are using QAmiTrack, each of you can use another of Jeremy Friesner's

programs, `QSendFile`, to exchange image files. Again, there will be entries in `Services` (2958/tcp) and in `InetD` (`QSendfile stream tcp nowait root YourPathTo:QSendFile`) of Miami's Database area. The install script takes care of this messy business for you, so you needn't worry.

If you want to launch `QSendfile` from QAmiTrack, you will need to modify Action7 in QAmiTrack's ToolTypes so that it looks something like **ACTION7=SendFile,YourPathTo:QSendFile %h**

Whether you use `QSendFile` or AmiComSys to exchange data, you have no precise idea of what your colleague is seeing, and therefore thinking. Enter AmiSlate, a way of seeing the same image at the same time.

## AmiSlate Interactive Viewing At Its Best

AmiSlate is an Internet paint program by Jeremy Friesner that provides a canvas on which you, and the person you are connected to, can create a picture. Whatever you draw is seen by your friend as you draw it. And the reverse is also true. It is as if you and your friend are drawing on the same canvas at the same time.

If you are using Miami, you will want to download from Aminet the special install script for AmiSlate contained in `AmiSlateMiami.lha` and use it instead of the script that comes with `AmiSlate1.4.lha`. The installation is straightforward and by now, you know to expect entries in Miami's `Services` (2955/tcp) and `InetD` (`AmiSlate stream tcp nowait root YourPathTo:AmiSlate`). You will not need to get your hands dirty with any of this because, once again, the install script makes all the entries.

You can launch AmiSlate from QAmiTrack by assigning, in ToolTypes, an ACTION number and a name (**ACTION10=AmiSlate**), your complete path to AmiSlate (`YourPathTo:AmiSlate`), and then adding, at the end, an argument to indicate `username@hostname` (`%u@%h`). I leave it to you to make the actual entries. You can contact me at [mikety@octet.com](mailto:mikety@octet.com) if you need help.

AmiSlate provides up to 256 colors and supports basic draw tools like lines and simple open and closed geometric shapes. One of the supplied ARexx scripts, `TextDisplay.rexx`, allows you to add text to the canvas. The default font is `simple.slatefont`, which is adequate.



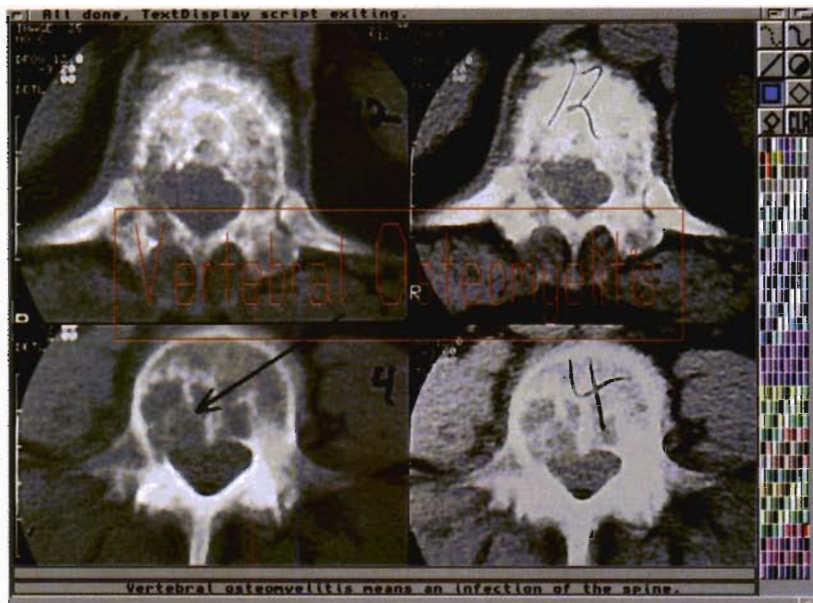


Figure 4: The ability to annotate diagnostic images in near real time should lead to more accurate medical consultation.



Figure 5: Frederik Thiesen (Thiesen@du10-24.ppp.algonet.se) used AmiSlate to send this beautiful picture of his WorkBench screen. AmiSlate allows any two Amiga users, no matter how far apart, to share graphic information.

Although the letters can be made any size, I found no convenient way to create bold or italicized text.

You can communicate with your partner by typing messages at the bottom of the screen, below the canvas, in the area called the "chat bar." This feature means that you do not have to shuttle back and forth between AmiSlate and AmTalk or AmiComSys.

If interactive drawing and painting were all that AmiSlate could do, the program would be of little interest to me. My own drawing ability is non-existent

and I am not particularly interested in watching someone else scribble on my screen, unless that someone else is the equivalent of Vincent van Gogh. So, while I was aware of AmiSlate two years ago, I did not download it until recently. I had completely underestimated its potential.

With AmiSlate, either of you can load an IFF file and both of you can see it. In my case, it would be a medical image (Figure 4); in yours, it might be a graphic you are producing for a client or a picture of your Amiga's workbench

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(Figure 5). Both of you can mark up the image as you wish, to indicate important (or unimportant!) areas, without changing the original which remains safely on your hard drive. The annotated, or otherwise changed image, can be saved at the end of the session via screen capture. The "Save IFF" button should be avoided as a (known) bug can lead to a system crash.

### Let's Put it All Together

Where are we? If I want to show you where the abnormality is on a medical image, I will start Miami and then launch QAmitrack to see if you are on the 'Net. If you are and if you have also launched QAmitrack, I will see your username (and hostname) listed and I will try to "talk" with you by double-clicking on your name while AmTalk is displayed on QAmiTrack's cycle button (Figure 6—Page 42). You will then be sent a request to accept my invitation to talk.

If you accept my invitation to talk and, if you have configured your TCP software (e.g., Miami) correctly, AmTalk  
(continued on page 42)



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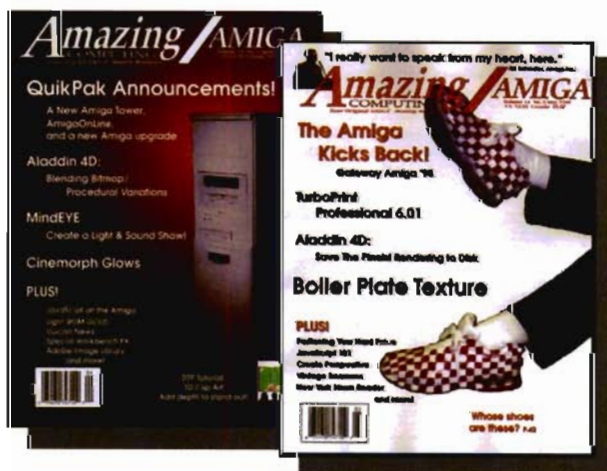
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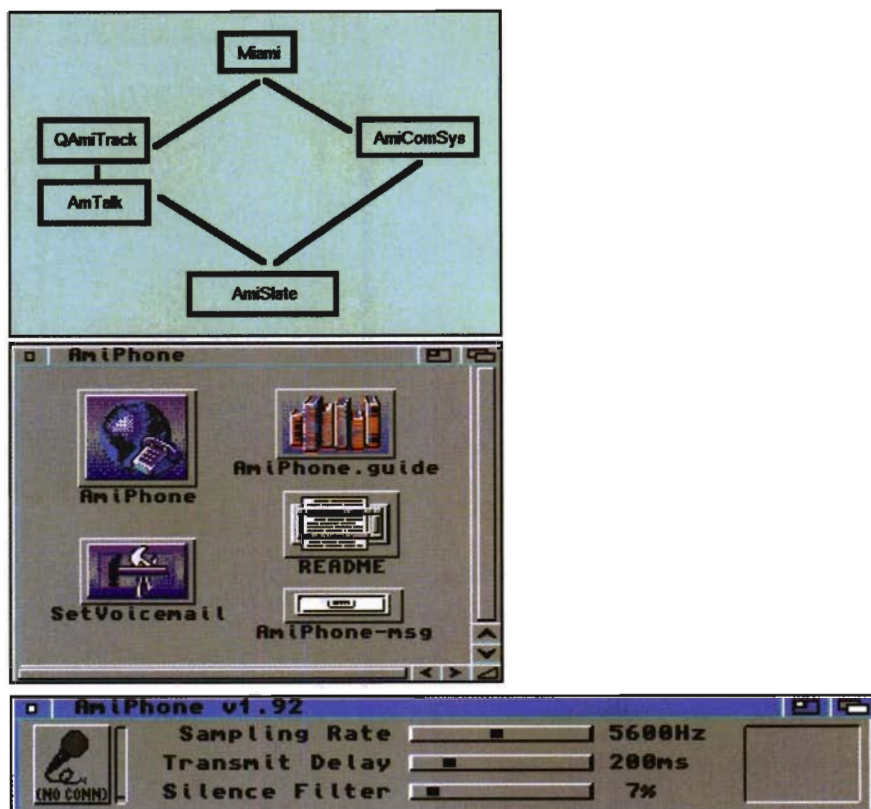
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**Figure 6:** After connecting to the Internet using Miami, you can use QAmiTrack to see if your friend is also online and chat with him using AmTalk if he is. Alternatively, you can use AmiComSys to meet and chat without needing an additional program. Later, you can use AmiSlate to view images interactively.

**Figure 7A (MIDDLE) And 7B (Bottom):** AmiPhone is the Amiga's Internet telephone program. You may have to decrease the number of your workbench colors to allow AmiPhone to sample at its recommended rate without slowing down your system.

(continued from page 38)

will be launched on your machine and a chat window will be created for us. We will then type information to each other.

Next I will launch AmiSlate and connect to you using your username@hostname, which I already know from QAmiTrack. Indeed, I probably will use QAmiTrack to launch AmiSlate and connect to you in one step.

You will then receive a request to connect. If you accept my request to connect and if you have also configured your TCP software correctly, AmiSlate will be launched on your machine, if it is not already running, and we will be connected. I will then load my medical image, which is in IFF format, and we will view it together. I can place an arrow on the abnormality, which, of course, you will see. I might write the diagnosis directly on the image using the DisplayText.rexx program (Right\_Amiga 6 is the keyboard shortcut) or I can use the chat area beneath the canvas to

convey the same information. Now, we both know precisely what we are talking about.

### Icing On The Cake

If you really insist on hearing my voice, or want to know for sure that it is none other than I who is communicating with you, I can run AmiPhone, use my audio sampler (GVP DSS8), and talk to you over the Internet. Of course, you also need to have AmiPhone installed on your system, although you don't need a microphone if you only intend to listen.

AmiPhone (Figure 7) is yet another program by Jeremy Friesner. If you are using Miami for your TCP software, you will want to use the special Miami install script (AmiPhoneMiami.lha) instead of the script that comes with AmiPhone1.92.lha. The install script will take care of the entries in InetD and services. You can alter QAmiTrack's ToolTypes if you want to use this program to launch AmiPhone and connect in one step.

When I initially used AmiPhone, I was disappointed because the sample rate necessary to have acceptable clarity slowed my Amiga (A1200 with 68030 50MHz accelerator) to a crawl. With help from Jeremy Friesner himself, I found that reducing the number of colors in my workbench screen from 256 to 64, allowed me to use AmiPhone and other Internet programs simultaneously.

I do not use AmiPhone routinely. Unlike an ordinary telephone, I get no audio feedback with AmiPhone so that I do not know how I am sounding on the other end. For example, I don't know that when I say "too close to us" you hear, instead, "tuberculosis!" Also, I can keep a record of our conversation when we type using AmTalk but not when we speak using AmiPhone. Nonetheless, it is great to have AmiPhone as an option. Details regarding AmiPhone's operation have been reviewed in the March, 1998 issue of *Amazing Computing*/Amiga.

### You Want A Copy of The CT Scan?

I have already mentioned that if you want a copy of a medical image, or any other file for that matter, you can use the file exchange module that is part of AmiComSys or else use QSendFile. Files can also be sent as "Attachments" to e-mail messages. I have used YAM countless times for this purpose. Sending images via e-mail is particularly convenient if I am online and you are not.

There are even more ways of sending files. I can ftp them to a site where you can have access, such as my own web site (<http://www.octet.com/~mikety/ftp.html>), or I can use AmIRC to do a DCC send. I can even set up my Amiga as an FTP server. A discussion of these methods is beyond the scope of this article.

Suffice it to say that it is important to be able to send medical images to referring physicians and that sending them as attachments to e-mail is easy and convenient, especially if both parties are not online at the same time. On the other hand, if both are online, QSendFile and AmiComSys are reasonable alternatives.

### An Important Point

In our discussions, we have assumed that the medical images were already on the Amiga without discussing how they got there. In the best of all worlds, medical images would reside on



an ftp server in a format readable by the Amiga. Unfortunately, this is often not the case. In many instances, image files are stored in proprietary, incompatible formats.

Recently, manufacturers of medical imaging equipment have agreed to a networking standard called DICOM and the images are stored in DICOM format. You can visit the University Hospital of Geneva and learn more about DICOM and test the non-Amiga software by pointing your browser to:

<http://www.expasy.ch/www/UIN/html1/projects/osiris/DownloadOsiris.html>.

Until DICOM directory and image viewing software becomes available for the Amiga, we will continue to need to digitize medical images after they are printed on film, either by video capture or by scanning with a transparency adaptor equipped flatbed scanner. For Ultrasound, CT, MR and Nuclear Medicine images, the quality is quite acceptable.

For video capture, I continue to use the WV-1410 Panasonic black and white CCTV video camera with a GVP IV24 video card. For flatbed scanning, I use an Epson Expression 636 scanner with a transparency adapter. Such an adaptor is necessary because x-ray film, like slide film, requires the light source to be behind the image.

## Overall Assessment

How well does it all work? Like Peck's bad boy, when everything is good it is very good, but what happens if things get very bad? We are obviously very much dependent on tibt and his computer to be up and running 24 hours a day, 365 days a year. Here we have one person with one Amiga computer servicing, at his own expense, the entire Amiga community throughout the world. Although I have experienced amazingly few interruptions with [qamitrack.tibt.at](http://qamitrack.tibt.at), I think we must concede that we are dealing with a vulnerable situation. Amiga Technologies could play an important role by providing and maintaining a full-time Amiga AMarquee server.

As with most things Amiga, there are work-arounds. Friends or co-workers could agree to meet on an IRC channel and then discuss whatever needs discussing before proceeding to AmiSlate. One can easily find

username@hostname information by using the /whois command as in /whois mikety. AmIRC makes it even more convenient by allowing you to highlight a username from the list of people on the same channel and then selecting the "Query" button.

## The Future

Although very effective in its current form, AmiSlate could use additional draw tools and more effective control over them. Unfortunately, Jeremy reports having lost a significant part of the program code during a hard drive crash. Perhaps exceptional interest in Amislate might convince Mr. Friesner to build an even more powerful program. One desirable feature of the AmiSlate of the future might be the ability to accommodate multiple users simultaneously.

And what about those benighted users of lesser computer systems? Perhaps UAE (Universal Amiga Emulator) could run AMarquee programs, including AmiSlate, on non-Amiga platforms. In my initial attempts using the pre-release version of Cloanto's Amiga Forever software, I was not successful in having Miami recognize the modem connected to a PC laptop serial port. But nothing is ever easy with PCs with their IRQ and port conflicts and I have no doubt that, in time, these telecommunications issues will be resolved.

## All Types of Fun and Games

I hope that I have been able to convince you that you can use the Amiga to work interactively on the Internet. The programs I have described are important because they permit any two Amiga users to work together on the same project even if they are separated by many thousands of miles.

The graphics do not have to involve medicine. As I have already indicated, the images can be paintings, sketches, logos, floor-plans, electronic schematics, blueprints, or anything else. And the two Amiga users can do anything to the images they wish. They can create them, change them, paint them, annotate them, or, in short, anything at all.

And, if two Amiga users can work together, they can play together. Chess, tetris, reversi, and much else are more fun when shared. The same programs that allow interactive work are the same ones that allow interactive play.

Being a long time Tetris fan, I decided to try out Netris by (who else?) Jeremy Friesner. To use the program you need to be on the Internet, have installed AMarquee, and know the server hostname of the person you wish to play. QAmiTrack provides you with the hostname and, you can, of course, modify QAmiTrack's ToolTypes to connect in one step.

Netris gives you four "wells," with each player having his own well. The play is typical Tetris with the added feature of blocks sporadically accumulating underneath your pile and raising you dangerously closer to the top! If you wish, you can type each other unkind messages at the bottom of the screen. But I recommend you pay attention to the falling tiles, for if your pile reaches the top of the well, you lose the game.

What can I say? Netris is great fun. And, if you tire of Netris, there are several games listed in AmiSlate's menu, including chess, which you can also try. As I write this article, Amiga Doom seems to be very popular for interactive play. Although I cannot say what the rage will be when you read this article, I am sure that you will not be lacking for games to play on a rainy day.

## Final Thoughts

Although the Amiga community is relatively small and is scattered throughout the world, this doesn't mean that we cannot be in close contact with each other. The interactive programs I have discussed can help keep us together.

I used these very programs to communicate and work interactively with Jeremy Friesner in California, Hakan Parting and Frederik Thiesen in Sweden, Thomas Steinbichler in Austria, and Paul Gooch in England. It was fun, it was exciting, and without all of us working together I could not have pulled everything together for you.

What I am suggesting is that new friendships and work relationships are as close as your Amiga. I am also suggesting that you remember that most of the wonderful Amiga programs I have mentioned are shareware and that shareware authors depend on us for support.

*Please Write to:*  
**Michael Tobin, M.D., Ph.D.**  
**c/o Amazing Computing**  
**P.O. Box 9490**  
**Fall River, MA 02720**

•AC•



# Unix on the Amiga!

## Turn your Amiga into a powerful Unix workstation.

### Part 1: Preparing your system and gathering the software.

*By Antonello De Santis*

#### History and concepts of Unix.

In the end of the '60s the R&D departments of General Electric, AT&T Bell Laboratories and Massachusetts Institute of Technology, joined their efforts to realize a new, powerful operating system called Multics, that was able to run on GE mainframe computers and make optimum use of their advanced hardware. Pay attention to the last sentence "...make optimum use of their advanced hardware...", this is the philosophy of Unix: an efficient operating system **MUST** allow the user to get the most from his computer. The development of this new OS continued and in 1969 AT&T Bell Laboratories' Ken Thompson gave birth to the Unix OS. Most of the Multics project's concepts found their first application in Unix. Preemptive multitasking and multiuser facility were the most revolutionary concepts introduced.

What does "multiuser facility" mean? It means that you can buy only one very modern and expensive computer for your university or enterprise, install Unix and all the software you need on it, then buy very cheap stupid computers (terminals) and link them to the Unix machine—you're done! Now every user with a valid account (login/password), can log onto the Unix based computer from one of the terminals and use all the software installed on it!

Think how powerful a "multiuser facility" is? A multitasking and multiuser OS allows you to use 100% of the capabilities of your powerful computer. The processor has no chance to take a microsecond of rest!

#### About The Author:

*Antonello De Santis is an Italian student in Computer Science at "La Sapienza" University in Rome. He is very keen on everything about computers, operating systems in particular. He would like to greet his Canadian girlfriend through these pages: Ciao Claudia! Feel free to contact him at his email address: ua01020@flashnet.it*

*Antonello ends his email with, "On the box it said, 'To install under Windows 3.1 or better', so I installed it on my Amiga."*

The development of Unix never stopped, the greatest step forward has been the total rewriting of the source code in C language, that allowed Unix to be easily ported to all the platforms provided with a C compiler. The common habit in the Unix environment is to write every piece of software in a high level language, that usually is C or C++, but also Perl, Fortran or Lisp. The advantage of this custom is almost total hardware independence of every program properly written under any Unix OS. In this way, you only need to recompile the source code on your particular machine to have a perfectly working program. Nowadays there are many Unix variants available virtually for all "modern" CPUs found on the most common computers with names such as: Minix, Solaris, System 3, Linux and BSD.

#### Yes, what about the Amiga?

The Amiga has its own Unix like operating systems. The very first available was Minix, a very old Unix OS with no memory protection. Amiga Unix was developed by Commodore and, of course, is no longer supported.

The most recent and efficient Unix operating systems on the Amiga are NetBSD and Linux 68k. The latter is a direct port of the Intel version by Linus Torvalds.

Personally, I still have some doubts about Linux 68k. While the Intel counterpart is one of the best Unix OSs available and it is provided with a HUGE quantity of every kind of software, the 680x0 version does not have the same depth of software. However, you can get around this obstacle by recompiling the source code of the Intel versions. The real problems with Linux 68k are instability and the incredible difficulty of the installation process. I believe there are still many steps to follow before making the 68k version of Linux as efficient as the Intel one. So in this series of articles I'll concentrate mainly on the other Unix OS available on the Amiga: NetBSD, by California University in Berkeley.



Amiga NetBSD is a port of the Atari version by the author of the ixemul.library, Markus Wilde, who is also responsible for porting GCC to AmigaDOS. GCC is the C/C++ compiler, developed by Richard Stallman's Free Software Foundation, available on every Unix OS. Richard Stallman's society would require an entire article on its own—maybe later.

NetBSD gives you all the features of a standard Unix OS: multitasking, multiusers, kernel-integrated TCP/IP stack, compilers, internet demons and clients, networking capabilities and a very efficient X11 system. X11 is a windows based GUI (Graphical User Interface), that makes NetBSD much easier and much more attractive to use. It is the Unix equivalent of the Workbench or Scalos for the AmigaDOS.

### What is required to install NetBSD?

To install NetBSD on your Amiga you will need at least the following hardware: a 68020 CPU or better, an FPU (Floating Point Unit), a MMU (Memory Management Unit), ECS or AGA chipset, 5MB of RAM (of which at least 1MB is of Chip RAM) and three partitions on your hard drive for a total of no less than 65MB. A memory management unit is built in on all processors from 68020 to 68060 except for CPUs whose name contains the letters EC or LC which do not have a built in MMU. The standard A1200 has a 680ec20 CPU that doesn't have an integrated MMU. The latest phase 5 accelerator boards, Blizzard 1230 IV, 1240 and 1260, all have a built in MMU. The 68060 ALWAYS has a built in FPU, the 68040 has a built in FPU too, but the 680lc40 does not.

To install NetBSD you will need an expansion board on which you can mount an FPU (68881 or 68882). I don't know any accelerator or RAM expansion board that does not have an FPU socket. If you have at least this hardware then you can make your Amiga a true NetBSD workstation. Check the "Advised Configurations" box below as well as the "NetBSD Supported Devices" table for the supported hardware devices and recommended configurations to run NetBSD in its full functionality.

## Advised Configurations

### NetBSD

Every machine with FPU, MMU, 1M of Chip RAM and 4M of Fast RAM, can run NetBSD in text mode, that is, without X11 windows system.

### NetBSD + X11

The bare minimum to run NetBSD+X11 is an AGA 030 based machine with 8M of Fast RAM, don't expect a fast windows system though. To run X11 at a good speed you need at least an AGA 040 machine. A graphic board would definitely increase the speed on 030 machines too. NetBSD+X11 will fly on a 16M of Fast RAM, 060 and graphic board Amiga.

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## NetBSD supported devices

### IDE controllers

A1200 and A4000 built in

### SCSI host adapters

33c93 based boards: A2091, A300 and GVP series II  
 53c80 based boards: 12 Gauge, IVS and Wordsync/  
 Bytesync  
 53c710 based boards: A4091, Magnum, Warp Engine  
 and Zeus  
 FAS216 based boards: FastLane Z3, Blizzard

### Video controllers

ECS, AGA and A2024 built in on various Amiga  
 models, Retina Z2 and Retina Z3, Picasso II, GVP  
 Spectrum, Piccolo, A2410, Cybervision 64

### Ethernet controllers

A2065 Ethernet, Hydra Ethernet, ASDG Ethernet,  
 A4066 Ethernet, Ariadne Ethernet, Quicknet  
 Ethernet

### Arcnet controllers

A2060 Arcnet

### Tape drives

Most SCSI tape drives, including Archive Viper,  
 Cipher SCSI-2 ST150

### CD-ROM drives

Most SCSI CD-ROM drives

### Serial cards

MultiFaceCard II and III, A2232

## Partitioning your hard drive.

This is the most delicate operation required to prepare your system to install NetBSD. You need to create three new partitions where the OS will be installed. These partitions are called root, usr and swap. The kernel and all the files needed to boot NetBSD will be installed in the root partition. Utilities, compilers, editors and all the other programs will be installed in the usr partition. The swap partition is used by NetBSD for a more efficient use of memory.

Before starting to repartition your hard drive, **MAKE A BACK UP OF EVERYTHING** in your hard drive. Repartitioning your hard drive will cause the total loss of everything in it. You have been warned! (For more information—take a look at the *This Old Workbench* article on partitioning your hard drive in the May issue of *Amazing Computing/Amiga*—Editor.)

Run the `hdtoolbox` program in `workbench:tools` directory, click on the “partition drive” button. You will be shown all the partitions of your hard drive. Delete all of them and then create the partitions you need to install AmigaDOS. Remember to leave enough space for NetBSD partitions though! (Check the box to see the recommended dimensions for each one.) Create the root partition, give it the name you prefer and mark it as non-bootable. Then select the “advanced options” gadget and click on the “change...” button.

Now you will see all the characteristics of the file system. Click on the “custom file system” button and follow these steps:

- One: Turn off the “automount this partition” gadget
- Two: Turn off the “use custom boot code” gadget
- Three: Set “reserved blocks at” both “beginning” and “end” to “0”,
- Four: Set the “Identifier” to “0x4e425207”.

Now click on “ok” and create the `usr` and `swap` partitions, you must follow the same steps as for the root partition except for the “identifier” that must be set to “0x4e425507” for the `usr` partition and to “0x4e425301” for the `swap` partition. Click on “ok” and again on “ok”, now if you are sure to have done everything properly and you have a back up of your hard drive, you can click on “save changes to drive”. Your hard drive is now ready to welcome NetBSD!

## Files needed and where to find them.

If you want to find the whole distribution of NetBSD, the simplest thing for those of you having a CD-ROM drive is to buy the “Gateway! 3” CD. This has **EVERYTHING** you need to

## Sources of NetBSD

Host name	Path
ftp.iastate.edu	/pub/netbsd
ftp.eecs.umich.edu	/BSD/NetBSD
gatekeeper.dec.com	/pub/BSD/NetBSD
wipux2.wifo.uni-mannheim.de	/pub/NetBSD
ftp.demon.co.uk	/pub/BSD/NetBSD
ftp.uni-regensburg.de	/pub/NetBSD
ftp.unit.no	/pub/NetBSD
ftp.stacken.kth.se	/pub/OS/NetBSD
flick.lerc.nasa.gov	/pub/NetBSD
coombs.anu.edu.au	/pub/NetBSD
ftp.funet.fi	/pub/unix/NetBSD
ftp.netbsd.org	/pub/NetBSD

install NetBSD. If you would rather do it on your own, you will have to download all the files from one of the anonymous FTP sites written in one of the boxes in these pages.

The Amiga distribution sets can be found in the `.... / NetBSD-1.2/amiga/` directory. NetBSD is made up of many distribution sets, but not all of them are needed to get a basic working system. The necessary sets are: `base12` and `etc12`. You can find them in the `.... / NetBSD-1.2/amiga/binary` directory. Each set is located in its own directory. The following sets are the ones I advise you to install to have a perfect Unix system: `base12`, `etc12`, `comp12`, `games12`, `man12`, `misc12`, `text12`, that can be found in `.... / NetBSD-1.2/amiga/binary/`, `secr12`, that is in `.... / NetBSD-1.2/amiga/security`, and finally `ksrc12` in `.... / NetBSD-1.2/source/`.

In several of the FTP sites mentioned in one of the boxes, you can find each distribution set in compressed form. I advise you to download the compressed sets, it will take **MUCH** less time to download. After getting the distribution sets you want, you need to download `xstreamtodev.gz` and `loadbsd.gz` from the directory `.... / NetBSD-1.2/amiga/utis/`, and `netbsd.gz` in `.... / NetBSD-1.2/amiga/binary/kernel/`. You will also need to have `ixemul.library` version 46.0 installed in your `libs` directory and `gzip` packer to decompress all the files you downloaded. You can get the last two files from Aminet in `.... / aminet/dev/ade`.

To keep all the files you have downloaded in order: create a directory called `NetBSD` in one of your AmigaDOS partitions, then create a subdirectory for each distribution set you have downloaded and unpack each set in its own subdirectory. This will make the entire installation process much faster and easier.

If you want to install the X11 windows system (you **MUST** install it if you want a complete Unix system), you will need to download some more archives from the ftp site: `ftp.uni-regensburg.de` in the directory `/pub/NetBSD-Amiga/contrib/`

`X11/X11R6.1/bin12`. The files are:  
`X11R6.1-bin-01Oct96.tar.gz`  
`X11R6.1-fonts-01Oct96.tar.gz`  
`X11R6.1-include-01Oct96.tar.gz`  
`X11R6.1-lib-01Oct96.tar.gz`  
`X11R6.1-man-01Oct96.tar.gz`

Now you have everything you need to install NetBSD on your Amiga, see you next month for the real installation! •AC•

## NetBSD partitions' dimensions

### Minimum

NetBSD: root 10M, `usr` 45M, swap 2M for every M of RAM

NetBSD+X11: root 10M, `usr` 80M, swap 2M for every M of RAM

### Recommended

NetBSD: root 20M, `usr` as much as you can, swap 2M for every M of RAM

NetBSD+X11: root 20M, `usr` as much as you can, swap 2M for every M of RAM



# Recent History!

## Did You Miss The April Issue?



### Volume 13 Number 4 April, 1998

**New Products & other neat stuff,** Oxypatcher, Air Mail Pro 2.0, TurboCalc V5.0, Vote in AAA Awards, phase 5 and BoXer unite, and much more!

**Aladdin 4D Tutorial #17: Blended Bitmap/Procedural Variations,** It is time to enumerate the ways that texture sandwiches, built of any number or combination or procedurals and/or bitmaps, can be constructed by R. Shamms Mortier.

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## High Praise!

## Did You Miss An Issue of AC?



### Volume 13 Number 3 March, 1998

**New Products & other neat Stuff,** Developer book for Blitz Basic, Image FX3.0, Aminet resets, and more.

**PowerPC,** Joe Torre of Amiga Inc. on the Amiga's CPU direction.

**Smoothing Reality,** Smooth out life's bumpy roads (or at least those created by DFX 3D files) with Pixel 3D Professional by R. Shamms Mortier.

**Chat with Amiphone,** communicate with other Amiga friends but don't pay the high telephone bills! by Frederick R. Phillips II.

**POV Ray Tracer 3.02c,** 3D art on a budget! by Dave Matthews

**On Line,** Some of the extra goodies in the AWebII.

**Hey! Who Tore My Amazing Computing/Amiga!,** Draw attention to your presentations with a *tattered* look by Nick Cook.

**This Old Workbench: Episode 15 The Importance of Being small,**

Compression software for the net or just to make room on your hard drive by Dave Matthews.

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**Letter Morph Geometry,** In animation, there are an infinite number of ways to get the effect you need. In this tutorial, we explore the use of text morphing in a variety of operations by R. Shamms Mortier.

**Byte Sized Reviews,** You can create pretty neat particle effects in your Amiga 2D painting software by Nick Cook.

**And Furthermore...Technology and Community,** With the world of computers and the Amiga available to us, our vision can grow by looking next door by R. Shamms Mortier.

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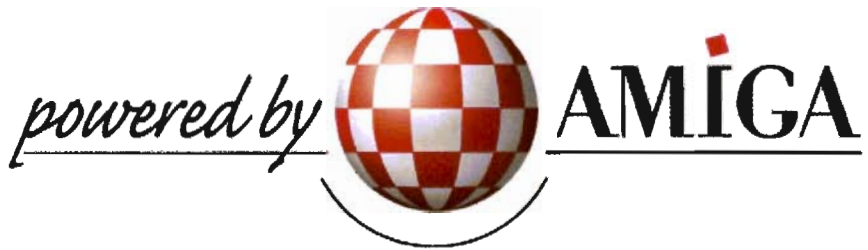
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# Which Boing is Official?



The original Boing ball, left, is a favorite of the Amiga Inc. group while the modernized Boing logo, above, is favored by Amiga International.

## Boing Lore

Among the more interesting things going on in the Amiga marketplace, there seems to be a division (at least in function) between the two Amiga companies over which Amiga Boing logo is to be used. Amiga Inc. (with Joe Torre at its lead) favors the original Amiga emblem. Amiga International (championed by Petro Tyschtschenko) supports their modernized version of the international symbol.

Joe Torre has even written a poem about the creation of the boing (see below) and supports the original design in all his interaction with other Amigans. Joe has even been seen painting ping pong balls in the Boing format while on planes and in airport waiting areas.

Petro Tyschtschenko has supported his version widely by passing out Powered by Amiga stickers, pins, and special "puffy" boing balls that look very nice on Amiga towers, monitors, and other assorted peripherals.

### Get Out The Vote!

Currently, both groups remain quite happy promoting their own versions of the boing emblem (and both emblems remain the property of Amiga Inc. and Amiga International). However, we at AC wondered which logo the Amiga users preferred. So we have launched a "Vote for your favorite Boing Ball election" on our web site at [www.pimpub.com/boing.html](http://www.pimpub.com/boing.html).

To vote, visit the site and cast your vote (you will be required to register your name and email address to keep things honest). If you wish to vote by mail, send a card or letter to the following:

To support the Original Boing Ball, send your card or letter to: Amazing Computing Original Boing, P.O. Box 9490, Fall River, MA 02720.

To support the Modern Boing Ball, send your card or letter to: Amazing Computing Modern Boing, P.O. Box 9490, Fall River, MA 02720.

### In the Boingingin

*by Joe Torre*

In the beginning, there was the Ball, and it was Boing!  
The Gurus of the day created the checks, and they were marked.  
The marks thus made, were Red, amidst the White, even in number yea,  
and odd like a pattern.  
and they were Square, all over the form.  
and the number of them, being a creation of programmers, was set.  
As yee gaze uppon the ball, thow shalt see 8 across, and 8 tall.  
Bytes on ball, that many tall, and if yee only see half the ball.  
and that number seen, being 64, was good. Yea, twice the 8 across,  
is 16, the number of bits of a 64.  
The total of them all is 128, the next one that was great.  
But lastly, the Ball was tilted, like earth, so that when it  
spun, the moving colors changed scanlines, making the trick harder,  
and the demo greater. and that the tilt was clockwise, and 16 degrees.  
and the Ball went forth,  
and it is Boing!

AC will maintain a chart of the progress on our web site as well as reporting the results here. All votes must be cast no later than June 30, 1998 to be included in the count.

The Boing logo remains the property of the individual organizations and no attempt has been or will be made to usurp their authority over the uses or other value of these properties. This is not sponsored by Amiga Inc. or Amiga International and will have no effect on their use of the Boing logo (unless someone feels it may be important to listen to the users).

Please vote!

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